132-161

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1889.

No. 48.

CHAUNCEY R. WATSON, APPELLANT,

vs.

THE CINCINNATI, INDIANAPOLIS, ST. LOUIS & CHICAGO RAILWAY COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF INDIANA.

FILED AUGUST 5, 1886.

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JUDD & DETWEILER, PRINTERS, WASHINGTON, JANUARY 3, 1889.

1 Pleas of the circuit court of the United States for the district of Indiana, begun and holden at the United States court-house, in the city of Indianapolis, in said district, on the first Tuesday of November, in the year of our Lord one thousand eight hundred and eighty-four, before the Honorable William A. Woods, judge of the district court of the United States for the district of Indiana and *ex officio* judge of said circuit court.

CHAUNCEY R. WATSON
vs.
THE CINCINNATI, INDIANAPOLIS, ST. LOUIS AND CHICAGO RAILWAY COMPANY. } In Equity.

Be it remembered that heretofore, to wit, at the May term of said court, on the 9th day of May, A. D. 1884, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following proceedings in the above-entitled cause were had, to wit:

Comes now the complainant, by C. P. Jacobs, Esq., his solicitor, and files his bill of complaint herein in the words following, to wit:

To the honorable the judges of the circuit court of the United States for the district of Indiana:

Chauncey R. Watson, a citizen of Marion county and State of Indiana, brings this his bill of complaint against the Cincin-
2 nati, Indianapolis, St. Louis and Chicago Railway Company, a corporation organized under the laws of the State of Indiana, citizens of the State of Indiana, having its principal office in the State of Indiana, in the city of Indianapolis; and your orator respectfully represents unto your honors that he was the first inventor of a new and useful improvement in grain cars, which are fully and particularly described in the letters patent hereinafter mentioned, and which had not been known or used before his said invention.

And your orator further represents unto your honors that, being so as aforesaid the first inventor and discoverer of the said improvement and invention, and being also a citizen of the United States, he did, upon due application therefor, obtain letters patent of the United States, dated the 30th day of April, A. D. 1878, numbered 203,226, for the said invention and improvement, in due form of law, under the seal of the Patent Office of the United States, signed by the acting Secretary of the Interior and countersigned by the Commissioner of Patents of the United States, whereby was granted and secured unto the said Chauncey R. Watson, your orator, his heirs, administrators, and assigns, or intended so to be, for the term of seventeen years from and after the date of said letters patent,
3 the full and exclusive right and liberty of making, constructing, using, and vending to others to be used the said invention and improvement, which said letters patent are now remaining on record in the Patent Office of the United States, and by virtue whereof the said Chauncey R. Watson became and was the sole owner of all the rights and privileges granted and secured, or intended to be granted or secured, in and by the said letters patent, a

certified copy of which is now here ready to be produced in court whenever required.

And your orator further represents unto your honors that the said letters patent No. 203,226, so granted to him, were intended, as he is informed by counsel learned in the law, to secure and do secure to him, as he verily believes, the exclusive right for the term of seventeen years from the date of granting said letters patent, the sole and exclusive right, to make, use, and sell a car for the transportation of grain and other freight, constructed substantially like an ordinary freight car, having an outside door for closing the car and provided with an inside flexible or yielding sliding grain door, which is adapted to be carried up on guide rods or their equivalent overhead and out of the way and under the roof of the cars; that of such a car having an outside enclosing car door proper, in com-
4 bination with an inside sliding flexible grain door, he was the first and original inventor and is entitled to protection as such.

And your orator further shows unto your honors that he is informed and believes that his said invention is of great value to the public and to the various companies engaged in the transportation of grain by rail, and is specially adapted for cars of great capacity and such as are now supplanting cars of smaller capacity upon the various railroads, and must and will come into general use, and that he will realize large gains and profits therefrom if infringements by the defendant and her confederates be prevented.

And your orator further shows unto your honors that the defendant, The Cincinnati, Indianapolis, St. Louis and Chicago Railway Company, well knowing the premises and also the rights secured to your orator as aforesaid under and by virtue of the granting to him of said letters patent No. 203,226, and contriving to injure your orator and to deprive him of the benefits and and advantages which might and would otherwise accrue unto him from said invention, conspiring and combining with the Chicago, Rock Island and Pacific Rail-
way Company, a railroad corporation organized under a foreign
5 law and not being within the jurisdiction of this court, and one Dennis F. Van Liew, who resides in Aurora, Illinois, who claims to be a maker or inventor of grain-car doors, after the issuance of said letters patent and before the commencement of this suit, to wit, on the 8th and 9th days of May, 1884, did cause to be loaded with grain and did transport and convey over and, unlawfully and without any license or authority from the complainant, use upon their line of railroad and tracks in the State of Indiana two certain freight cars manufactured under the direction of said Van Liew and for the said The Chicago, Rock Island and Pacific Railway Company, said cars being lettered with the proprietary initials, C., R. I. & P. R. Co., and numbered, respectively, 3076 and 23002, and each of these cars embodied and represented in its construction the combination of a freight car having an outside or closing door proper and an inside flexible grain door adapted to be carried up overhead out of the way under the roof of the car substantially as described in the letters patent issued to complainant, the only difference being

the mechanical change of substituting channels or grooves for the sides of the inner door to run in instead of the iron rods shown
6 in complainant's patent, which change, as complainant is informed and believes, is only the substitution of one well-known and old mechanical equivalent for another, and is not a departure from the principal of complainant's device.

And your orator further shows unto your honors that at various other times after the issue of said letters patent and before the commencement of this suit the defendant unlawfully used upon and over its railroad and tracks other cars like and similar to the ones hereinbefore described and made gains and profits therefrom, but how many and at what particular dates complainant has no knowledge and prays a discovery thereof.

And your orator further represents unto your honors that the unlawful use by the defendant, The Cincinnati, Indianapolis, St. Louis and Chicago Railway Company, of the said invention and improvement, and their evident determination to continue in the use
7 thereof by receiving from their connecting roads given cars embodying the device of the complainant, and their other aforesaid unlawful acts in the premises, all of which have been in violation of your orator's rights and without his license or authority and in defiance of the rights of your orator, have the effect to induce others to infringe upon them and to deny him the rights secured to him under and by virtue of said letters patent.

And forasmuch as your orator can have no relief except in this honorable court, to the end, therefor-, that the defendant may, if she can, show why your orator should not have the relief herein prayed for and may, upon her corporal oath and according to her best and utmost knowledge, remembrance, information, and belief, full, true, and perfect answers make to the premises and all the several matters and things hereinbefore stated and charged as fully and particularly as if separately interrogated thereto, and that the said defendant may be compelled to account for and pay to your orator the profits by her acquired and the damages suffered by your orator from her aforesaid unlawful acts, and to render an account of the
8 number of cars used by her embodying the combination hereinbefore described and the amount of freights and tariff monies received from the use of such cars and the dates of such uses.

And your orator prays that the defendant may be compelled to account as aforesaid, and that she and her servants, agents, attorneys, and workmen, and each and every of them, may be restrained and enjoined by the order and injunction of this honorable court from directly or indirectly making, using, vending, delivering, working, or putting into practice, operation, or use, — in any way counterfeiting or imitating the said invention or any part thereof, or any grain car made in accordance therewith or like or similar to those which she has heretofore used; and also that your honors, upon the entering of a decree for the infringement as above prayed for, may proceed to assess, or cause to be assessed under your direction, in addition to the profits to be accounted for by the defendant as afore-

said, the damages your orator has sustained by reason of such infringement, and that your honors may increase the actual
9 damages so assessed to a sum equal to three times the amount of such assessment under the circumstances of the willful and unjust infringement by defendant as above set forth; and he prays that the defendant may be decreed to pay the costs of this suit, and that your orator may have such other and further relief as to this honorable court shall seem meet and shall be agreeable to equity.

May it please your honors to grant unto your orator the writ of injunction, provisional as well as perpetual, issuing out of and under the seal of this honorable court, commanding, enjoining, and restraining the defendant, her servants, agents, attorneys, and workmen, and each and every of them, as hereinbefore in that behalf prayed.

May it please your honors to grant unto your orator the writ of subpœna, issuing out of and under the seal of this honorable court, directed to the defendant, commanding her by a certain day and under a certain penalty to be and appear in this honorable court, then and there to answer the premises and to stand and abide such order and decree as may be made against her.

CHAUNCEY R. WATSON,
Complainant.

C. P. JACOBS, *Of Counsel.*

10 *Verification.*

UNITED STATES OF AMERICA, } ss:
District of Indiana, }

Chauncey R. Watson, being duly sworn, on his oath says he is the complainant named in the foregoing bill of complaint; that the same has been read in his hearing and he knows well the contents thereof; that the matters and things therein stated as of his own knowledge are true in substance and in fact; that as to the matters therein stated as upon information and belief they are true, as he verily believes.

CHAUNCEY R. WATSON.

Subscribed and sworn to before me this 9th day of May, 1884.
NOBLE C. BUTLER,
Clerk U. S. C't.

And afterwards, to wit, at the May term of said court, on the 2nd day of July, A. D. 1884, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

Comes now the defendant, by George Payson, Esq., its solicitors, and files its answer herein in the words following, to wit:

The said defendant, now and at all times hereafter saving and
11 reserving to itself all and all manner of benefit and advantage of exception to the many errors and insufficiencies in the

complainant's said bill of complaint contained, for answer thereunto or unto so much or such parts thereof as defendant is advised is material for it to make answer unto, answering, says—

That it admits that it is a corporation created and existing, in due form of law, in the said State, and that a patent issued to said complainant for improvement in grain-car doors dated April 30th, 1878, and numbered 203,226, but whether said complainant made due application therefor or whether said patent was in due form of law, under the seal of the Patent Office or signed by the Secretary of the Interior or countersigned by the Commissioner of Patents, this defendant has no knowledge, information, or belief save as derived from said bill. The defendant therefore denies each and all of said allegations and leaves the complainant to make such proof thereof as he may be advised.

12 And this defendant denies that said patent was intended to secure or did secure to the said complainant the sole and exclusive right to make, use or sell a car for the transportation of grain or other freight, constructed substantially like an ordinary freight car, having an outside door for closing the car and provided with an inside flexible or yielding sliding grain door adapted to be carried up on guide rods or their equivalents overhead and out of the way and under the roof of the car.

And this defendant denies that said alleged invention is of great or any value to the public or to the various companies engaged in the transportation of grain by rail, or is especially adapted for cars of great capacity upon the various railroads, or that it must or will come into general use, or that the complainant will realize large gains or profits therefrom, all as alleged in the said bill.

And defendant further denies that said complainant was the original and first inventor or discoverer of the thing patented in said patent or of any material and substantial part thereof, but avers that

13 the same had been, prior to his supposed invention thereof, shown and described in the following United States letters patent, dated and granted at the times and to the persons following, to wit:

A. L. Johnson, April 11th, 1842.
J. Root, August 5th, 1851.
D. M. Hall, December 6th, 1859.
G. B. Rich, March 19th, 1867.
William G. Perkins, June 11th, 1867.
Martin M. Crooker, May 26th, 1868.
Stephen E. Knott, May 25th, 1869.
Laurence F. Frazeer, May 9th, 1871.
Horace L. Clark, August 29th, 1871.
Dennis F. Van Liew, June 23rd, 1874.
George W. Phelon, January 12th, 1875.
McCarty & Glenn, March 30th, 1875.
J. G. Wilson, February 5th, 1878.
J. C. Paul, March 19th, 1878.
Zebina M. Hibbard, February 29th, 1876.

And this defendant further says that the said grain-car doors re-

ferred to in said bill as being on the cars of the Chicago, Rock Island & Pacific Railway Company were made under and in accordance with the said patent of Martin M. Crooker above mentioned, which was issued about ten years prior to the patent of said complainant here sued on; that the said patent was afterwards assigned to the said Dennis F. Van Liew, and it was with his license and consent that the said cars were so equipped with the said doors.

14 And this defendant admits that the only differences between said Crooker's doors and the complainant's are that Crooker's slide in grooves and have their slats fastened together by a continuous wire running through them, while complainant's slide on rods passing through staples and are fastened together by ordinary hinges, both being inside doors and, with the exception of the above differences, operating in substantially the same way.

And defendant denies that said complainant's door, as described in his said patent, contains any patentable invention in view of the said Crooker patent or is any improvement thereon, and denies that in view of the state of the art at the time of the complainant's supposed invention there was any patentable novelty or invention therein.

And defendant denies that it has ever made or used the thing described and claimed in complainant's patent, or that it has ever at any time or in any way infringed said patent or any of the rights of said complainant, or has ever done any act or thing to induce or having the effect to induce others to infringe thereon.

15 And this defendant denies all and all manner of unlawful combination and confederacy wherewith it is by the said bill charged, without this, that there is any other matter, cause, or thing in said bill contained material or necessary for this defendant to make answer unto and not herein well and sufficiently answered, confessed, traversed, and avoided or denied is true, to the knowledge or belief of this defendant; all which matters and things this defendant is ready and willing to aver, maintain, and prove as this honorable court shall direct, and prays to be hence dismissed with its reasonable costs and charges in this behalf most wrongfully sustained.

In witness whereof the said defendant has caused its above answer to be signed by its president and its corporate seal to be thereto affixed this — day of ——, A. D. 1884.

[SEAL.] CIN'T., IND., ST. LOUIS & CHICAGO R'Y CO.,
By M. E. INGALLS, *Pres't.*

GEORGE LAYSON,
Counsel for said Defendant.

16 And afterwards, to wit, at the May term of said court, on the 7th day of July, A. D. 1884, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

Comes now the complainant, by C. P. Jacobs, Esq., his solicitor,

and, upon his motion, it is ordered that Anna Taylor, of the city of Indianapolis, be, and she is hereby, appointed special examiner in chancery in this cause, and is empowered to cause to come before *him*, at the law office of C. P. Jacobs, No. 36 North Delaware street, in said city, upon proper notice given to the defendant, the witnesses of the complainant, and to take their depositions in writing and return the same, duly certified, into this court, addressed to the clerk thereof, at Indianapolis.

And afterwards, to wit, at the May term of said court, on the 2nd day of October, A. D. 1884, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

Come now the parties, by counsel, and file their stipulation herein in the words following, to wit:

17 It is hereby stipulated and agreed by and between the parties to the above-entitled suit as follows:

First. The complainants may offer in evidence upon the hearing without further proof thereof—

1st. Letters patent No. 203,226, issued to Chauncey R. Watson April 30th, 1878.

2d. Model of a freight-car box, with Watson's device attached, as described in his said patent.

3d. Model of a freight-car box, with sliding door, as shown in letters patent issued to Martin M. Crooker May 26th, 1868, No. 78188.

4th. Model of freight-car box, with grain door, as shown in cars used by defendant, as hereinafter specified.

Second. The defendant may in like manner offer in evidence upon the hearing without further proof thereof—

1st. Copies of the letters patent named and specified in its answer heretofore filed in this cause; and where the said patents have been printed by the Patent Office the drawings and specifications may be given in evidence without certification, but those not thus printed are to be certified in the usual manner.

18 2d. Certified copies of the file wrapper and contents of the letters patent granted to Chauncey R. Watson April 30th, 1878, and Martin M. Crooker May 26th, 1868.

Third. And it is further agreed that before the commencement of this suit the said defendant hauled over its line of road, in said State of Indiana, freight cars belonging to the Chicago, Rock Island & Pacific Railway Company having a solid outside door like an ordinary freight car and an inner flexible sliding grain door of less height than the opening in the side of the car, the said grain door sliding in grooves like the grooves shown in the said patent of Martin M. Crooker of May 26th, 1868, and the slats composing said door being attached to each other by being strung upon wires passing through said slats.

Fourth. It is further agreed that if any question arises as to the

correctness of the said models above specified the court may call in a competent expert to testify thereto.

September 30, 1884.

GEORGE PAYSON,
Defendant's Solicitor.
C. P. JACOBS,
Solicitor for Complainant.

19 And afterwards, to wit, at the November term of said court, on the 3rd day of November, A. D. 1884, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

Comes now the complainant, by C. P. Jacobs, Esq., his solicitor, and files his replication herein in the words following, to wit:

The replication of Chauncey R. Watson, complainant, to the answer of The Cincinnati, Indianapolis, St. Louis and Chicago Railway Company, defendant.

This repliant, saving and reserving unto himself all and all manner of advantage of exception to the manifold insufficiencies of the said answer, for replication thereunto, says that he will aver and prove his said bill to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by this repliant, without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied
20 unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

C. P. JACOBS,
Att'y and Counsel for Compl't.

And afterwards, to wit, at the November term of said court, on the 30th day of March, A. D. 1885, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

Final Decree.

This cause came on to be heard at this term and was argued by counsel; and thereupon, upon consideration thereof, it was ordered, adjudged, and decreed as follows, to wit:

First. That there has been no infringement by said defendant of the said letters patent.

Second. That the said bill of complaint be therefore dismissed at complainant's costs.

Third. That the said defendant recover its costs in this suit against the said complainant, to be taxed, and have execution therefor.

21 From this decree the complainant in open court claims an appeal to the Supreme Court of the United States and gives good and sufficient security in the sum of $500 that he will prosecute his said appeal to effect and answer all damages and costs if he fails to make his plea good, and said appeal is allowed accordingly.

And afterwards, to wit, at the November term of said court, on the 25th day of February, 1886, before the Honorable William A. Woods, judge, as aforesaid, of said court, the following further proceedings in the above-entitled cause were had, to wit:

By leave of the court the complainant, Chauncey R. Watson, comes now and files his bond on appeal to the Supreme Court of the United States in the sum of five hundred dollars ($500), with Christian F. G. Meyer as surety thereon, which is now approved by the court and ordered to be filed in this cause by the clerk.

22 *Record of Evidence.*

And be it further remembered that on the hearing of this cause the complainant, Chauncey R. Watson, read in evidence letters patent No. 203,226, issued to him on the 30th day of April, 1878, for an improvement in grain doors, which letters patent are in the words and figures following, to wit:

"No. 203,226.

The United States of America to all to whom these presents shall come:

Whereas Chauncey R. Watson, of Indianapolis, Indiana, has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in grain-car doors, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Chauncey R. Watson, his heirs or assigns, for the term of seventeen years from the thirtieth day of April, one thousand eight
23 hundred and seventy-eight, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this thirtieth day of April, in the year of our Lord one thousand eight

hundred and seventy-eight, and of the Independence of the United States of America the one hundred and second.

[L. S.] A. BELL,
Acting Secretary of the Interior.

Countersigned:
ELLIS SPEAR,
Commissioner of Patents.

(Here follows diagram marked page 24.)

25 UNITED STATES PATENT OFFICE.

CHAUNCEY R. WATSON, of Indianapolis, Indiana.

Improvement in Grain-Car Doors.

Specifications forming part of Letters Patent No. 203,226, dated April 30th, 1878; application filed February 23d, 1878.

To all whom it may concern:

Be it known that I, Chauncey R. Watson, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful improvements in grain doors; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which make part of this specification and in which—

Figure 1 represents a side elevation of a car, showing the grain door in position when in use. Fig. 2 represents a transverse vertical section taken through the line *x x* of Fig. 1, showing one of the grain doors in position when in use and the opposite door at the top of the car, where it is carried to be out of the way. Fig. 3 is a longitudinal vertical section showing the door in position and looking at the inside thereof.

Similar letters of reference in the several figures indicate like parts.

This invention relates to improvements in the class of grain doors for cars, and the invention consists in the combination, with
26 a car, of an inside vertically-sliding flexible or yielding door and guiding rods, whereby the door, when not in use, may be carried up and placed on the horizontal portion of said guiding rods, so as to be out of the way, all substantially as hereinafter described.

Referring to the accompanying drawings, A represents the body of a car having guiding rods C at either side of the doorway, fastened, at their lower ends, in the floor of the car, which rods extend upwardly and parallel with the inner frame of the car to within a short distance of its top, where they are curved and suitably braced to the central roof timber B. D represents the grain door, constructed of longitudinal sectional pieces d' d^2 d^3, hinged together, as shown at *e e*. The upper and lower sections thereof, d' and d^3, are provided with staples *c c*, which encompass the guiding rods C and serve to direct

C. R. WATSON.
Grain-Car Door.

24

No. 203,226. Patented April 30, 1878.

Fig. 1.

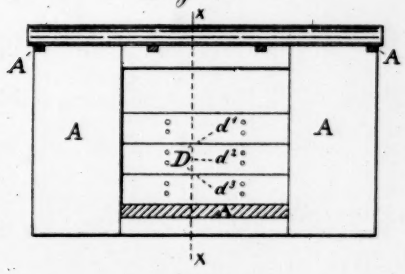

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Fig 2.

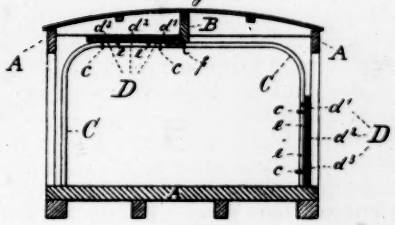
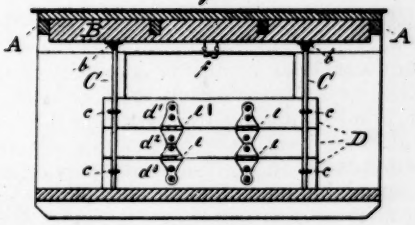


Fig. 3.



WITNESSES.

Milton R. McDonald

James B. Lizius

INVENTOR.

Chauncey R. Watson

the movement of the doors when it is desired to place them out of the way at the top of the car. The guiding rods, at their lower ends, may be provided with screw threads, which work into metal plates provided with female threads, which latter, when affixed to the floor of the car, serve to hold the rods firmly thereto and in proper position to admit of the desired movement of the grain doors. The grain doors, when at the top of the car, may be
27 securely held there out of the way by a hook, *f*, locking into a staple on the upper section, *d'*.

The great desideratum to be obtained in the use of a grain door is that while it may serve its proper purpose when the car is loaded with grain it may with facility be moved out of the way when the car is empty or loaded with other freight without being detached from the car, whereby its loss or injury is rendered improbable, and it is always in such position that its use as a grain door may be resorted to whenever needed. The bottom section, d^3, of the door may be shod with an iron plate to prevent injury thereto when being raised to allow of the egress of the grain.

I am aware that a car door of similar construction, sliding in gro-ved ways, is old, and such I do not desire to claim, broadly, as my invention.

Said door, however, constitutes an outside or closing car door proper, and the car could not be loaded or used for bulk grain unless the grain is put in from the roof of the car, as the door completely closes the doorway or opening.

Furthermore, said door is obviously objectionable for other reasons, viz: The grain will lodge or get in the grooved ways in which the door slides, binding or locking it so as to prevent its being raised, and also being an outside door the grain pressing against it
28 would force or bulge the door outward, producing a similar effect as the grain lodging in the grooved ways, whereas my door, being an inside door and not reaching the top of the doorway or opening, admits an open space at the top for loading in the grain, with an ordinary outside door to be locked or otherwise secured after the car is loaded. By also employing guiding rods for the door to slide upon, and being an inside door, the defects incident to the grooved ways and an outside door before referred to are entirely obviated.

Having thus fully described my invention, what I claim and desire to secure by letters patent is—

The combination, with a car, of an inside flexible or yielding sliding grain door, having staples *c* and the vertical and horizontal bent guiding rods C, extending from the floor of the car upwardly and under the roof of the car, as herein shown and described, whereby said door when not in use can be carried up on the horizontal portions of said guiding rods out of the way, substantially as specified.

In testimony whereof I have hereunto set my hand this 18th day of February, 1878.

CHAUNCEY R. WATSON.

Witnesses:
EDMUND VAILLANT.
WILL M. FLOYD."

29 And the said complainant Watson further gave and read in evidence the depositions of George F. David, John L. McFarland, Chauncey R. Watson, Charles W. Jenkins, and William T. Metcalf; which depositions are in the words and figures following, to wit:

30 *Notice.*

The said defendant in the above-entitled cause is hereby notified that on Tuesday, the 18th day of November, 1884, the complainant will attend at the office of his solicitor, No. 36 North Delaware street, Indianapolis, Indiana, before Anna Taylor, an examiner duly appointed by the court in this behalf, and will proceed to take the testimony of witnesses in support of his bill of complaint, under and in accordance with the rules of equity relating thereto, beginning at 10 o'clock a. m. of said day, and will continue the taking thereof, at the same place, from day to day until completed, at which you are invited to be present.

CHAUNCEY R. WATSON, *Compl't,*
By C. P. JACOBS, *Sol.*

Service acknowledged Nov. 14, 1884.

GEORGE PAYSON, *Def't's Sol.*

Depositions of George F. David, John L. McFarland, Chauncey R. Watson, Chas. W. Jenkins, and William H. Metcalf, witnesses, taken before me, Anna Taylor, an examiner appointed by the court, in the cause now pending in the United States circuit court for the district of Indiana, wherein Chauncey R. Watson is complainant and The Cincinnati, Indianapolis & St. Louis Railway Company is defendant, in equity, No. 7792.

31 These depositions were taken at the office of C. P. Jacobs, Esq., counsel for complainant, in the city of Indianapolis, on Tuesday, November 18, 1884, and during the taking thereof the complainant was represented by C. P. Jacobs, Esq., and the defendant was not represented.

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TUESDAY, *Nov.* 18, 1884—10 o'clock a. m.

GEORGE F. DAVID, being first duly sworn to testify the truth, the whole truth, and nothing but the truth relating to the matters at issue in said cause, deposes as follows:

Examined by C. P. JACOBS, complainant's solicitor:

Q. 1. State your name, age, residence, and occupation.

A. George F. David; residence, Indianapolis. I am general yard-master of the C., C., C. & I. and the I. & St. L. railways.

Q. 2. How long have you been in the railway service and what positions have you occupied? State fully.

A. I have been in the service 24 years; first as switch en-
32 gineer and fireman, then as freight loader, then as city car distributor, then as city yard-master, and then as general yard-master.

Q. 3. When did you begin having charge of loading freight cars?

A. About eighteen years ago.

Q. 4. About 1866, was it?

A. About that; yes, sir.

Q. 5. How long did you continue loading cars?

A. About five or six years.

Q. 6. And since that time, as I understand you, you have been engaged as yard-master?

A. As yard-master and car distributor.

Q. 7. How many cars would you generally load and unload a day when you were engaged in that work?

A. From 60 to 120 per day.

Q. 8. What experience have you had in loading freight cars with grain in bulk?

A. No personal experience. Part of my duty as car distributor is to see that grain doors were properly provided in cars, and that they were in proper condition to load with grain.

Q. 9. What do you mean by grain doors?

33 A. They are to prevent the grain in bulk from running out of the car.

Q. 10. Was an ordinary freight car used?

A. An ordinary freight car; yes, sir.

Q. 11. What, in addition to the outside rigid sliding door of an ordinary freight car, was necessary in loading grain in bulk in these cars?

A. An inside door.

Q. 12. What shape would that have to be? Wherein did it differ from an outside solid door?

A. It was half the height of the door frame.

Q. 13. What was the object of having it half the height of the door opening?

A. In order to allow the inside door to be placed while the bulk grain was being loaded in the car. The bulk grain could not be loaded unless the door was there.

Q. 14. That is to say, the door had to be open the full half the height of the opening before the grain commenced to be put in?

A. Yes, sir.

Q. 15. Of what were these grain doors of which you had the superintendence made?

A. Rough lumber.

34 Q. 16. And how were they fastened in the opening?

A. By slots attached to the door frames; and these doors run in these slots, with a key on top to fasten them.

Q. 17. Who provided these grain doors—the shipper or the railway company?

A. The railway company.

Q. 18. Was there any charge made to the shippers for it?

A. No, sir; not at that time.

Q. 19. What has been the custom since?

A. The custom is now for the shipper to take the car without the grain door and provide the grain door when it is necessary, and then charge the expense back to the company, the company paying the same.

Q. 20. What is the amount paid when the shipper provides an ordinary grain door in cars that have none?

A. I am unable to state accurately, but think it is from 30 to 37½ cents a door or 60 to 75 cents per car, there being one door on each side.

Q. 21. When the car loaded with grain was returned in what condition were these rough grain doors found to be?

35 A. Sometimes they were entirely carried away and sometimes partially destroyed, and in all conditions.

Q. 22. What do you know of those rough grain doors being in a condition to be used a second time? Did you ever know of one?

A. When they were fixed in the car as a portion of the car then they may have been used probably half a dozen times, but they were put in by the shipper, made of just ordinary rough lumber nailed to the side of the door posts; then they were invariably taken out by the party unloading the car.

Q. 23. Then if that car was reloaded?

A. Another door would have to be provided.

Q. 24. And the expense was the same as it was before?

A. Yes, sir.

Q. 25. What is the advantage, then, in economy and in use of providing a car with permanent grain doors?

A. It saves the repeated expense of a new grain door every time the car is loaded with grain.

Q. 26. To what extent has this rough lumber door been used in your experience upon the roads?

36 A. My personal experience with the Bee Line and I. and St. L. is that there were very few permanent grain doors used.

Q. 27. When did you first become acquainted with permanent grain doors?

A. When I first went to railroading some of the railroad companies had permanent grain doors in their cars.

Q. 28. What kind of grain doors have been used, in your experience, up to within the last five years? You have mentioned one.

A. They were all upon the same principle, being slipped down in slots. Some are wedge-shaped, some straight, slots. They are made according to the different positions of the slot on the side of the car.

Q. 29. For what other purpose is it necessary to use freight cars besides the loading of grain?

A. For loading bulk freight, boxes, barrels, lumber, etc.

Q. 30. Do you know of any road that keeps cars for grain only?

A. I do not.

Q. 31. They use, then, the ordinary freight cars with the grain-door attachment sometimes?

A. Yes, sir.

Q. 32. State whether any of those grain doors that you have
37 known or used in the last five years are capable of being thrown up overhead out of the way—that is to say, whether they were of solid construction or whether they were flexible.

A. They were all solid.

Q. 33. I now exhibit to you a wooden model of a freight-car box having a solid outside door and a flexible half-high grain door behind it, and which is marked "C. R. Watson's patent grain door." I will ask you to state when was the first — you ever saw a freight car having a grain door of that kind.

A. About two years ago.

Q. 34. Prior to that time what kind of grain doors were used?

A. The same as I have stated—solid doors.

Q. 35. What is the advantage of a car having a grain door of this kind, if any?

A. It is easier handled, less liable to be destroyed, and entirely out of the way in the car. It does not reduce the inside capacity of the car.

Q. 36. I now exhibit to you another wooden model of a freight-car box having an outside rigid door and an inside flexible grain door in two parts, marked "Defendant's car." Please examine
38 it and state whether you have seen any cars made with a grain door like this—when it was.

A. I saw a car—I do not now remember the initials of it—probably six months ago; a new car—the first I saw.

Q. 37. Do you remember whether there was any lettering on it? If so, state what it was.

A. There was. I cannot state all of the lettering, but I think Mr. Van Liew's name was on it. There probably may have been some other name on it. I do not remember.

Q. 38. Since that time have you seen others of that kind occasionally?

A. Once in a while, but what cars they were in I do not remember.

Q. 39. I now exhibit to you a third model of a freight-car box, with a sliding door filling the entire door opening, with no outside

door, which is marked Crooker's door. Have you ever seen a freight car with a door like that?

A. No, sir.

Q. 40. Have there been any in use in the twenty years of your experience?

A. No, sir.

39 Q. 41. State what is the objection to that for a grain door.

A. It could not be loaded with grain.

Q. 42. Why not?

A. Because there is no opportunity to load with grain after the door is in position.

Q. 43. Would you regard this, then, as an outside or an inside door?

A. I should say it was an outside door.

The models referred to are now offered in evidence by the complainant, to wit, the model marked "Complainant's Exhibit Watson Car," the model marked "Complainant's Exhibit Defendant's Car," the model marked "Complainant's Exhibit Crooker's Car."

Q. 44. What knowledge have you, if any, of any recent change in the construction of grain doors from solid to flexible doors in the making of new cars?

A. I know there have been some flexible doors put in cars.

Q. 45. How recently?

A. Within a year and a half, I should judge, to my knowledge.

Q. 46. Do you know whether or not they are increasing?

A. I could not say. I judge they are.

40 Q. 47. Do you see more of them now than formerly?

A. I see more of them now than I saw before. Therefore I judge they are increasing.

Q. 48. What advantage is there, if any, in having this flexible grain door in two parts rather than in one?

A. You note that one is higher than the other. One is to load corn, wheat, and the other to load oats.

Q. 49. Why would you have a higher door to load oats than wheat and corn?

A. Because it is a lighter grain—more bulky.

Q. 50. Is there any difference in the principle of operation of the door, whether higher or lower?

A. No, sir.

Q. 51. As I understand in a patent of this kind, the opening must be kept above the grain door when it is in position?

A. Yes, sir.

Q. 52. What, in your judgment, is the advantage, if any, in loading cars, of having the grain doors flexible, so as to be thrown up overhead out of the way, over the rigid doors or lumber doors ordinarily in use?

41 A. The flexible door or any door that is thrown above the body of the inside of the car attached to the inside of the roof is certainly preferable to a door that swings, for the reason that you can economize space in baled, barrelled, or boxed goods.

Q. 53. What is the effect where any grain doors are used which are lifted over against the sides of the car when they come in loaded with freight?

A. If at the terminal points they are to be unloaded from the opposite side from that on which they were loaded, and the grain door is in position on the opposite side, then, where they wish to unload it, it is a great inconvenience, as a certain amount of freight must be taken out from the inside of the car in order to admit of the swinging back of the door.

Q. 54. Is not that often the case?

A. Very often. A fair estimate of the number would be one-third of the cars loaded with boxes, barrels, etc.

Q. 55. What, in your opinion, is the average life of the swinging grain door?

42 A. I have seen swinging doors make two or three trips from Indianapolis to New York city and return uninjured, and I have seen the cars leave Indianapolis with the same equipment and return without a door, making but one trip.

Q. 56. What, in your opinion, is the average life of the chain door?

A. That is about the same.

Q. 57. How is it with the Van Liew door, that throws back on the side of the car?

A. In my judgement that would last longer than the chain or the swinging door, being of a better construction and their material put up in a better shape than the swinging or the chain door.

Q. 58. How would it be with the flexible door, that moves up overhead out of the way?

A. The flexible door has no opportunity to detach it from its rods and grooves, and there is very little opportunity to use it for any other purpose than a grain door. The swing door and chain door

43 can be used as running boards for transferring freight from the platform to the freight car and from the freight car to the platform.

Q. 59. Then, in your opinion, which would be the longest lived of all those doors?

A. The flexible door; very much so, in my opinion.

Q. 60. What is the advantage of the flexible door, with reference to the wedging the door in by the loading of freight or blocking it up?

A. Ordinarily the advantage is with the flexible door. I do not know but it would be in all cases. Even though the boxes were wedged against the flexible door, it could be pried up out of the way, and the higher it goes the easier it could be placed in position, where with the swinging door it would be impossible to do anything until you could get the full length of the door cleared away.

Q. 61. With the Van Liew door could you move it out of the way until the freight was removed?

A. In some cases you could, but if the car was compactly loaded it could not be done. I demonstrated that fact to Mr. Van Liew myself.

Q. 62. When was that?

A. May be five or six years ago.

This witness, Mr. David, is entitled to fees for one day's attendance, $1.50.

44 JOHN L. MCFARLAND, being first duly sworn to testify the truth, the whole truth, and nothing but the truth relating to the matters at issue in said cause, deposes as follows:

Examined by C. P. JACOBS, Esq.:

Q. 1. State you name, age, residence, and occupation.

A. John L. McFarland; age, 38; residence, Indianapolis; I have been in the freight department of railroad service for thirteen years.

Q. 2. With what roads have you been connected?

A. I was with the Pan Handle nine years and five months, and have been with the Wabash going on four years.

Q. 3. What positions have you occupied?

A. I was assistant foreman at the Pan Handle freight-house and foreman at the Wabash freight-house.

Q. 4. What were your duties as such foreman and assistant foreman?

A. I have charge of the men and freight—that is, loading and unloading the freight and delivering of the freight.

Q. 5. How many freight cars have you handled, loaded and unloaded, per day, as a fair average, during that time?

45 A. I suppose, on an average, of about twenty-four or twenty-five.

Q. 6. What kind of cars have been used and are used for loading grain in bulk as distinguished from other freight?

A. The same cars are used for all except stock cars, of course. Almost any ordinary box car is used for either or all purposes.

Q. 7. What change is necessary, if any, in an ordinary box car to adapt it for loading with grain in bulk?

A. I do not know as any change would be necessary. They have to be inspected each and every time to see that there is no leakage. That is the only change that would be required in an ordinary box car.

Q. 8. Is there any door required?

A. Oh, certainly there is a grain door required, most assuredly.

Q. 9. What do you mean by a grain door?

A. I mean a door between the space of the car and the outside door. There has got to be something in the inside so as to close the door in order to load the grain.

Q. 10. Is it or is it not necessary that the inside or grain

46 door, as you call it, should be entirely separate from the solid outside door?

A. It is, most assuredly.

Q. 11. What is the difference in height between the two?

A. There is considerable difference. As you have it right there, you see one door is higher than the other. The outside door is required to be the full height of the car or the difference between the two beams.

Q. 12. How high is the grain door required to be?

A. That depends on the grain that is to be loaded in the car. The car has a certain capacity, and the grain door is graded according to the grain.

Q. 13. State whether or not any of the door opening is necessary to be left open.

A. Most assuredly it would have to be.

Q. 14. Why?

A. Because the grain could not be loaded in the car unless there was an opening to put it in.

Q. 15. Where must that opening be?

A. In the center of the car, over the grain door.

Q. 16. Then, if a car was constructed with an inner door
47 which filled up the entire space, how could it be used for a grain door?

A. It could not be used for a grain door unless there was an opening in the top of the car.

Q. 17. When did you first see a car with a grain door?

A. I suppose about the first car I ever saw; I suppose twenty years ago.

Q. 18. When did you first see a car with a grain door made of slats, so as to be flexible and to be pushed up on rods overhead out of the way?

A. I could not give any definite time. It has not been longer than a year and a half or two years.

Q. 19. What kind of grain doors were used before that time?

A. There were various kinds.

Q. 20. Were any of them flexible?

A. No, sir. They were a grain door that has an upright casting or rod on each side, with a chain, I suppose, of two feet long on each side attached to that rod and then attached to the grain door. There is one made in that shape. There is another with one straight rod, and the door has hinges fastened on this rod at one end and swings out around the car.

48 Q. 21. Then, when these grain doors were not in use, how were they put out of the way?

A. Turned out of the way against the side of the car. There were hooks near the roof on the beam of the car to hang these on.

Q. 22. Then, as I understand you, the doors were either swung up on hinges or around on hinges?

A. Yes, sir.

Q. 23. Are you acquainted with what is known as the Van Liew door, that is adapted to be lifted up and pushed over on the inside of the car?

A. Yes, sir.

Q. 24. What change, if any, has been made in the capacity of box cars?

A. About one half.

Q. 25. What was the capacity of the old ones?

A. It was 20 to 24 thousand pounds—that is, 10 to 12 tons.

Q. 26. What is the capacity of the cars they now load?

Examined by C. P. JACOBS, Esq.:

Q. 1. State your name, age, residence, and occupation.

A. Chauncey R. Watson; age, 35; residence, Indianapolis; occupation, agent of the Blue Line fast freight.

Q. 2. What experience have you had in the freight department of railway service, and for how long?

54 A. I was chief clerk for the White Line fast freight for seven years and agent for the Blue Line four years.

Q. 3. You are the complainant in this case, I believe?

A. Yes, sir.

Q. 4. And the person to whom the letters patent sued on were issued?

A. Yes, sir.

Q. 5. State what you know of the kinds of grain doors in use before the date of your invention.

A. There were several: A door called the Martin door, being fastened to a perpendicular rod, swinging inwardly, sweeping the car; the door called the Miller door, a rigid door, and several rigid chain doors, hanging by chains and hanging up, and also the rigid Van Liew door.

Q. 6. Were any of those doors you have mentioned flexible sliding doors?

A. No, sir.

Q. 7. What is the need of a grain door, as you call it? Describe what it is for and how it ought to be constructed for use as a grain door.

A. It is for the purpose of keeping the grain in the car after being loaded. A grain door should be about 33 inches to 36 inches high. That will admit of the loading of 36 to 40 thousand pounds

55 of grain. It is an inside door, being separate and distinct from an outside door or the car door proper, which is fastened and sealed after being loaded.

Q. 8. At the time you made your invention was there or was there not, to your knowledge, any flexible grain door in use upon any line of railway?

A. There was none.

Q. 9. At that time how many lines of railway were directly or indirectly entering this city?

A. I should say ten or twelve.

Q. 10. How many are there now?

A. About the same or possibly one or two more.

Q. 11. During your service in these fast-freight lines what has been your opportunity of seeing the freight cars loaded and unloaded?

A. My business takes me to the depots every day and to the elevators.

Q. 12. What has been the custom in relation to providing grain doors for cars where none were provided by the builder?

A. The elevators provided their own doors, purchased lumber, and charged the various roads of fast-freight lines for the same,

56 putting in their bills monthly, at the rate of 35 cents per door, 70 cents per car.

Q. 13. How often does the same lumber return for use a second time?

A. I never heard of a single case.

Q. 14. What do you know about the solid Van Liew door, to be lifted over on swinging braces on the inside of the car, and what has been the effect of the use of the door in loading grain as to serviceability and wear of the door?

A. The door is probably nearer a fixture to the car than any in use prior to the flexible door. The door, to a certain extent, is an obstruction in the car, taking two or three inches on each side of the car for rods, etc. If cars were to be loaded with grain only it would be a very good door. The door is not lasting.

Q. 15. How often are they broken and what occasions these breaks?

A. The loading of miscellaneous freight—barrels, hogsheads, marble. They will bind the upright rods, and the natural wear and tear of the car breaks the door. The larger car now being constructed, also having the Van Liew rigid door, the door will not sustain its own weight. It falls into the car. It is safe to say that a car will make but two or three trips with this door in it, the increased height not being provided for by sufficient rods or rods of sufficient size.

57 Q. 16. I call your attention to these wooden models of freight-car boxes that have been given in evidence. State whether or not the one marked Watson's patent is a fair representation of your device as shown in your letters patent.

A. Yes, sir.

Q. 17. State whether or not the wooden model marked defendant's car is or is not a fair representation of the cars used by the defendant's road before this suit was begun, and described in the bill of complaint.

A. Yes, sir; it is.

Q. 18. Did you examine those cars yourself personally?

A. Yes, sir.

Q. 19. Under whose direction was the model of defendant's car made?

A. My own direction.

Q. 20. I call your attention to the third model, marked Crooker's car. Did you ever see a freight car in use upon any road with a door like that?

A. No, sir; I never did.

Q. 21. Can or cannot that door be used for grain?

A. It cannot.

Q. 22. What do you know, if anything, of the recent increase or decrease of the use in freight cars of a rigid outside door in combination with an inner flexible door?

58 A. I know the increase of an inner flexible yielding door is very great. I would say that four out of five cars of forty thousand — capacity are leaving the car works with the flexible

inside sliding door in connection with the car having an outside rigid door.

Q. 23. What is the advantage of making the grain door flexible, so that it can be shoved up overhead out of the way?

A. To save the grain door, easy handling, save expense to the railroad companies, save space inside the car; and, on account of space saved in the car, a flexible inside door admits of the better loading of cotton and all baled goods.

Q. 24. What do you know of the relative life of the flexible grain door as compared with the solid grain door lifted over against the side of the car—whether one is likely to last longer than the other in use?

A. Experience proves that the flexible door is almost a fixture to a car, while the swinging door or the chain door or the doors in general use are far from being fixtures to a car.

Q. 25. Which lasts the longer?

A. The flexible door.

One day's attendance, $—.

Adjourned until 1.30 p. m.

59 1.30 P. M.

CHARLES W. JENKINS, being first duly sworn to testify the truth, the whole truth, and nothing but the truth relating to said cause, deposes as follows:

Examined by C. P. JACOBS, Esq.:

Q. 1. State your name, age, residence, and occupation.

A. Charles W. Jenkins; residence, Indianapolis; occupation, foreman of the Pan Handle freight-house; age, 40.

Q. 2. How long have you been in the railway service and in what capacity?

A. I have worked for this company for over 20 years. I have held different positions; have had charge of the freight-house for several years, and was checkman before that.

Q. 3. How long have you had charge of the freight-house?

A. About ten years.

Q. 4. As such foreman, have you during that time had more or less to do with loading and unloading freight cars?

A. It was my business to see that cars were properly loaded and that freight was unloaded.

Q. 5. How many cars would you say would be a fair estimate that you have loaded and unloaded per day at that place during the past ten years?

60 A. On an average, I will say, about 55 cars.

Q. 6. What kind of cars are used for carrying grain in bulk?

A. An ordinary freight car.

Q. 7. What addition would you make to an ordinary freight box car in order to adapt it to carry grain in bulk?

A. I would put in a grain door. The grain door is made so as to slide off when they load the car with merchandise, and when we want to load it with grain of course we move the grain door over.

Q. 8. Then an ordinary freight car, in order to adapt it to carry grain in bulk it would be necessary to add an inside door for keeping the grain in place?

A. Yes, sir.

Q. 9. Is the outside door also necessary?

A. Well, no; it is not really necessary to keep the grain from falling, but to secure it it is necessary.

Q. 10. What is the difference in height between the outside door of a freight car and the inside grain door?

A. The outside door is the same height as the side of the car—that is, as the door opening—and the grain door is usually about three or three and a half feet high.

61 Q. 11. What is the object of making the grain door of less height than the door opening in the car?

A. In order to load the car. We sometimes load a car with bran, and we load it just as long as we can get a shovelfull of bran in the car; but a car loaded with wheat or corn, say three feet high, would probably weigh from 25,000 to 30,000 pounds. You could not carry it full, in fact. A car-load of corn loaded clear up to the roof would be too heavy.

Q. 12. Is the grain door put in place before or after the car is loaded?

A. Before.

Q. 13. Then how do you get the wheat and corn in?

A. Generally it is let in with spouts into the door opening, over the grain door.

Q. 14. Then, if the grain door were the same height as the door opening, would it be possible to load it with grain?

A. No; I think not.

Q. 15. You must have that opening between the upper part of the grain door and the top of the opening to let in the grain?

A. Yes, sir.

Q. 16. What has been, during your experience, the usual form of grain door used in cars during the past ten years?

62 A. In all of our new cars, for the last four or five years, the Van Liew door has been used, as a general thing—has been put in the car when it was built or rebuilt.

Q. 17. Is that a solid or flexible door?

A. It is a door that will move. It lies at the side of the car.

Q. 18. It is not jointed or flexible, but solid?

A. Yes, sir; solid.

Q. 19. What other kind of grain doors have you seen besides this Van Liew door of which you speak?

A. There have been a great many cars that we have used for the last four or five years that have had no doors in at all, and we have allowed the elevators that loaded those cars a certain amount for every door they put in, and they just used common boards—nailed

common boards across the door on the inside half high of the opening.

Q. 20. What has been the allowance made the elevators per car for furnishing that lumber and making those rude grain doors?

A. It runs in my mind that we paid them 90 cents a car.

Q. 21. Do those grain doors which are thus made of rude lumber ever come back to be used a second time?

63 A. No, sir.

Q. 22. What becomes of it?

A. I hardly know. It is lost or destroyed.

Q. 23. Is it or is it not a fact that during the last two or three years the capacity of freight cars has been increased from fifteen to twenty tons?

A. Yes, sir; it is.

Q. 24. What is the effect on doors hung on strips like the Van Liew solid door and which is thrown over when not in use to one side of the car? What is the effect of this increased size of the car on those doors? Do they have to be made correspondingly larger and stronger?

A. Yes; they have to be made higher. I think they are made stronger. I am not so positive now that they are, either. Of course, they are made larger, according to the size of the opening. The door, I think, is about a foot higher than the doors in the ordinary-sized cars. There is a long bar that holds this door in its place, and when the door is down and we want to open it this bar keeps the door from falling over into the car.

Q. 25. Do those doors ever twist off from their fastenings and fall off into the car?

64 A. Yes, sir; they do. It is very often the case that a box of merchandise is thrown against the door and thrown against this bar and will probably bind it a little bit, and, of course, the door will then get a little out of its place. Probably the car will come to Indianapolis and the door will not be back just where it should be, and that in loading the car again we will strike it, and the chances are we will break it.

Q. 26. Take a car that is provided with a grain door, and you desire to use it for ordinary bulk freight, do you want to use the grain door in that case?

A. No, sir.

Q. 27. What do you do with it?

A. We swing it back out of the way.

Q. 28. Is there any difficulty experienced in the jam-ing of these doors in loading bulk freight at terminal points for other places?

A. Yes, sir; I think there is.

Q. 29. Supposing a car were loaded at Terre Haute to come to Indianapolis, when you wanted to unload it at the other end what difficulty or trouble would you have with the Van Liew door in that case? Is that door ever jammed by the freight so you have

65 to move it to get the grain door out of the way?

A. Oh, yes; quite often. It is very often the case that when loading a car they will leave the grain door down. For in-

stance, if they load it on the north side of the car they will leave the door on the south side down, and when it comes to Indianapolis *and* we have to unload it on the south side, because there is no track on the other side, and then we have to go to work and pry that door out or lift the merchandise over the door until we get room enough to get the freight out.

Q. 30. I now call your attention to the model marked "defendant's car," in which there is a sliding door of less height than the doorway opening in an ordinary freight car box with an ordinary outside door. Have you ever seen a freight car with a grain door substantially like that?

A. Yes, sir; I cannot tell what kind of a car it was.

Q. 31. How long have they been in use, to your knowledge?

A. I have never seen very many of them, and it has been some three or four years, I think, since I saw any. I know my checkman down there called me into a car to examine them. That was,
66 probably, three years ago. It is my impression that was about the first I saw them.

Q. 32. In your experience have they been in use longer than that?

A. I think not.

Q. 33. I call your attention to a wooden model of a car called Crooker's car, in which there is a representation of a sliding inner door that fills the entire doorway and with no outside door. Did you ever see a freight car built like that?

A. No, sir.

Q. 34. Could that be used as a grain door with the door constructed like that?

A. No, sir; it could not. There is only one way it could be used, and that would be to have another door there to put the grain in, or cut a hole in it.

Q. 35. As it is it could not be used as a grain door?

A. No, sir; not as a grain door.

Q. 36. In your judgment what is the ordinary life of one of those solid grain doors, say the Van Liew door?

A. Take a car in general use, I would say about two years.

Q. 37. If you have had any recent occasion to examine the cars having the Van Liew door in state what the result of that examination was.

67 A. This morning I examined eight cars that were standing on the number 1 I. & V. track just south of the new I. & V. freight depot, and there were five cars that had the Van Liew door put in the car at the time they were built. There were but two of those five cars that had the doors O K on each side of the car.

Q. 38. As I understand you the others were all broken?

A. The others were all broken; and there was one with the doors lying on the bottom of the car, one at one end and the other at the other.

Q. —. That is to say, completely off their connections?

A. Yes, sir.

Q. 40. Those were solid doors, all of them?

A. Yes, sir; I gave my men instructions to watch very closely, and where there were doors loose that way to always leave the doors in the car and never take them out, because they have often before this taken the doors out and never put them back afterward and they were forgotten.

Q. 41. Is it or is it not frequently the case that these doors become entirely loose from their fastenings—these Van Liew doors—and are used as rolling boards for loading freight, as gangway planks?

68 A. Yes, sir; they were for loading freight from the platform of the depot into the car. That is done occasionally.

Q. 42. In your judgement as a professional railway man, are or are not the defects and disadvantages attending these solid doors which are swung over to one side in the car when not in use likely to occur when the door is adapted to be slid up overhead out of reach?

A. I do not know, hardly. I never had the experience of loading cars of that kind, but I rather think that cars that have doors similar to that would be more complete than the Van Liew grain door or any other grain door, for general purposes, for merchandise, etc. When the door is up overhead of course we can load the car with bulk freight, such as merchandise, cotton, and tobacco, without the door interfering, but the Van Liew door will interfere occasionally when you want to load a large car-load of cotton or hogsheads of tobacco. When you load 12 or 15 hogsheads of tobacco the Van Liew door will be very much in the way.

Q. 43. I understand you, when the Van Liew door or rigid door are not in use for grain, but are swung over to the side of the car, they are practically in the way for loading various kinds of bulk freight?

69 A. Yes, sir; in loading hogsheads they will not fit in the car and will often bend the bars.

WILLIAM H. METCALF, being first duly sworn to testify the truth, the whole truth, and nothing but the truth relating to the matters at issue in said cause, deposes as follows:

Examined by C. P. JACOBS, Esq.:

Q. 1. State your name, age, residence, and occupation.

A. William H. Metcalf; age, 34; residence, Indianapolis; I am assistant weigh-master at Elevator A, at Indianapolis.

Q. 2. How long have you been connected with the business of shipping grain?

A. Eleven years, in this city.

Q. 3. Have you during that time had occasion to examine the different kinds of cars equipped with what are called grain doors?

A. Yes, sir.

Q. 4. What kinds have you seen?

A. I suppose I have seen a great many different kinds of doors. I could name some of them which I would remember if I would see

the doors. I do not remember the names of any except the Van Liew. I remember that.

70 Q. 5. Were those doors you have seen solid doors and not flexible?

A. Yes, sir; I have seen both kinds.

Q. 6. How long since you first saw a car having a flexible grain door that could be shoved up overhead into the roof of the car in grooves?

A. I think the first one I saw was when I was superintendent of the Western elevator, about two years ago.

Q. 7. All the others that you have seen were solid doors, were they?

A. Yes, sir.

Q. 8. What is the object of a grain door?

A. The object of a grain door is, I should think, really to save expense to the railroad company of paying the elevators for putting in grain doors—that is, nailing the boards in.

Q. 9. Is it or is it not a fact that boards have been provided and nailed inside the car half high over each doorway for a number of years past by the elevator companies?

A. Yes, sir; they have *have* been provided by the elevator companies—that is, doors have been put in where there was no grain door in the car—at the expense of the railroad company.

Q. 10. What do they allow shippers and elevator companies
71 who put in the doors?

A. Ten years ago railroads paid 50 cents, but in the last number of years since the panic they got down to 35 cents a door. One dollar a car it used to be, and now, I think, it is 70 cents a car.

Q. 11. Did you ever see any doors that were made of temporary boards that came back to be used a second time?

A. No, sir.

Q. 12. What becomes of them?

A. They are taken out by the parties that receive the grain, or are thrown out of the car for kindling wood.

Q. 13. Is a grain door an inside door or an outside door?

A. It is an inside door.

Q. 14. Do I understand you, then, it is something provided on the inside in addition to an outside door?

A. Yes, sir.

Q. 15. What is the difference in height between the grain door of different kinds and the outside door?

A. A grain door is generally about three and a half feet high, and an outside door is the height of the door opening.

Q. 16. How much of the door opening is it desirable that a grain door should shut up?

A. It should shut up not quite half.

Q. 17. What is the object of leaving the upper half of the
72 door opening over the grain door open?

A. It is to load the car, certainly. We could not get the grain into it if it was not for that.

Q. 18. What advantage, then, would a grain door be which shut up the entire door opening?

A. We could not load grain at all with that kind of a door.

Q. 19. I call your attention now to the wooden model of a freight-car box, called the Crooker car, in which there is a sliding door that completely shuts up the opening and is adapted to run over the top of the car; could it or could it not be used as a grain door?

A. No, sir; it could not be used.

Q. 20. What do you know about the average life of those rigid grain doors that are put in cars by the builders?

A. It would be hard to average their life. It is very short with elevator people.

Q. 21. What do you know about the defects or weaknesses of the ordinary rigid grain door that has been used for several years past in freight cars?

A. I have had considerable experience in that in the last week. The trouble is with grain doors with a load when you open the outside door and go to open your door you have got to have
73 some place to leave your grain so the door will swing back, and most of them do swing back. Some are on an iron rod with hinges and are shoved up on that rod and swung round. The Van Liew door throws back. When you have a car loaded with wheat or corn, when you want to hoist that door you cannot throw it back, because the grain is in the way. The consequence is I always have my men to jam it right in and cut the door off, and when we load it throw the door out, and it is never used again.

Q. 22. What advantage would there be, in your opinion, in having the grain door made like Watson's, which could be swung right up overhead by inserting a crow-bar under it (referring to Watson's model)?

A. If the car was loaded solid with grain you could hoist that door up. Made as it is you could not swing the door around, because the grain is here in the way. If it is made like this, so you can stick a little crow-bar under and lift it up, then you are ready to step in with a shovel and do the work.

Q. 23. Then, in your opinion, does or does not the Watson
74 door overcome the disadvantages and defects of the solid grain door, to which reference has been made?

A. Yes, sir.

Q. 24. Suppose you want to load a car with ear corn in bulk and you had a Van Liew rigid grain door, what trouble would you experience?

A. I had that experience this last week. I can unload from a car and a half to two cars of ear corn or oats with a door that throws up into the roof quicker than I can unload one with a Van Liew door, that swings back or throws back. A throw back is worse than a swing back.

Q. 25. Is it or is it not a fact that freight cars provided with the ordinary solid outside door and a sliding flexible door like the Watson are coming more and more in use, whether you have seen

more of those cars provided with those doors lately than you did a year ago?

A. Yes, sir; I have.

Q. 26. What is about the average of the cars that you have loaded and unloaded per day during the last five or six years?

A. When I was with the Western Elevator Company we were doing a very large business, and some days we handled 150 cars and some days we would not handle over 40.

75 Q. 27. How has it been this season?

A. This season has been a remarkably dull season all summer. We have done very little. It would probably average from 20 to 50 cars per day.

UNITED STATES OF AMERICA, *District of Indiana*, } ss:

I, Anna Taylor, special examiner by appointment of court, do hereby certify that the foregoing depositions of George F. David, Charles W. Jenkins, John L. McFarland, William H. Metcalf, and Chauncey R. Watson were taken before me, at the office of Charles P. Jacobs, Esq., No. 36 N. Delaware street, in the city of Indianapolis, Ind., on the 18th day of Nov., 1884.

That these depositions were taken on behalf of the complainant in a cause now pending in the circuit court of the United States for the district of Indiana, in equity, wherein Chauncey R. Watson is complainant and The Cincinnati, Indianapolis & St. Louis Railway Company is defendant.

That these depositions were reduced to writing by me and each of said witnesses was by me first duly sworn to testify the truth, the whole truth, and nothing but the truth relating to the matters at issue in said cause.

76 That on the taking of these depositions the complainant was represented by C. P. Jacobs, Esq., his solicitor.

That I am not akin to any of the parties in said action, have no interest therein, and am not concerned in the event of said suit.

In witness whereof I hereunto set my hand this 20th day of November, 1884.

ANNA TAYLOR,
Special Examiner by Order of Court.

And the said complainant Watson also gave in evidence a duly certified copy of the decision on appeal of the board of examiners of the United States Patent Office in the matter of his said letters patent, which is in the words and figures following:

77 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the decision of the examiners-in-chief, April 22d,

1878, in the matter of the application of Chauncey R. Watson, filed February 23d, 1878, for improvement in grain doors for cars.

In testimony whereof I, Benj. Butterworth, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this 22d day of November, in the year of our Lord one thousand eight hundred and eighty-four, and of the Independence of the United States the one hundred and ninth.

[SEAL.] BENJ. BUTTERWORTH,
Commissioner.

No. 4724.

U. S. PATENT OFFICE, *Apr.* 22, 1878.

Before the examiners-in-chief on appeal.

Application of Chauncey R. Watson for a patent for an improvement in grain doors for cars. Filed February 23d, 1878.

The invention in this case is small and the claim is correspondingly limited.

It consists of a combination of various instrumentalities not found in either of the references.

Applicant's car, as a whole, is adapted by convertability to
78 uses not compatible with the cases cited without injury.

In this case the flexible door is applied in addition to the usual slide doors, and when coarse freight is to be carried the flexible shutters are secured in place at the top under the roof of the car.

The decision is reversed.

V. D. STOCKBRIDGE,
R. L. B. CLARKE,
Examiners-in-Chief.

M. J. H.

Endorsement: No. 4724. Chauncey R. Watson. Grain doors. Decision of the board. The decision of the examiner is reversed. April 22, 1878. Recorded Vol. 15, p. 101.

And thereupon the defendant, The Cincinnati, Indianapolis, St. Louis & Chicago Railway Company, gave in evidence a certified copy of the file wrapper and contents of the application of said Watson for his said letters patent, which is in the words and figures following, to wit:

79 To the Commissioner of Patents:

Your petitioner, Chauncey R. Watson, of Indianapolis, in the county of Marion and State of Indiana, respectfully represents that he has made certain new and useful improvements in grain doors, and prays that letters patent may be issued to him therefor.

He hereby appoints as his attorney J. J. Hayden, of Washington city, D. C., whom he hereby authorizes to amend the within specifi-

cation and claims, to receive the patent when granted, and to do all acts necessary to be done as if he were personally present and acting in the premises.

CHAUNCY R. WATSON.

To all whom it may concern:

Be it known that I, Chauncy R. Watson, of Indianapolis, in the county of Marion and State of Indiana, have invented new and useful improvements in grain doors; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which make part of this specification, and in which—

Fig. 1 represents a side elevation of a car showing the grain door in position when in use.

Fig. 2 represents a transverse vertical section, taken through
80 the line X X of Fig. 1, showing one of the grain doors in position when in use and the opposite door at the top of the car, where it is carried to be out of the way.

Fig. 3 is a longitudinal vertical section showing the door in position and looking at the inside thereof.

Similar letters of reference in the several figures indicate like parts.

22. Substitute, A, Mar. 18, '78. 27.

My invention consists in the *consideration* of a grain door in longitudinal sectional pieces hinged or strapped together in such manner as that the door as a whole may yield to follow guiding rods and rest on the latter at the top of the car when not in use—

All as substantially hereinafter described.

Referring to the accompanying drawings, A represents the body of a car having guiding rods C at either side of the doorway, fastened at their lower ends in the floor of the car, which rods extend upwardly and parallel with the inner frame of the car to within a short distance of its top, where they are curved and suitably braced to the central roof timber. B D represents the grain door, constructed of longitudinal sectional pieces d' d^2 d^3, hinged together, as shown, at *e e*. The upper and lower sections thereof, d' and d^3, are provided with staples *c c*, which encompass the guiding rods C and serve to direct the movement of the doors when it is desired to place them out of the way at the top of the car.

81 The guiding rods, at their lower ends, may be provided with screw threads which work into metal plates provided with female threads, which latter, when affixed to the floor of the car, serve to hold the rods firmly thereto and in proper position to admit of the desired movement of the grain doors. The grain doors, when at the top of the car, may be securely held there, out of the way, by a hook, *f*, locking into a staple on the upper section, d'.

Words and sentences enclosed between rules erased in original.

The great desideratum to be obtained in the use of a grain door is that, while it may serve its proper purpose when the car is loaded with grain, it may with facility be moved out of the way when the car is empty or loaded with other freight without being detached from the car, whereby its loss or injury is rendered improbable, and it is always in such position that its use as a grain door may be resorted to whenever needed.

The bottom section, d^3, of the door may be shod with an iron plate to prevent injury thereto when being raised to allow of the egress of the grain.

Insert B, Mar. 18, '78.

Having thus fully described *in* invention, what I claim and desire to secure by letters patent is—

82 1st. A grain door constructed of longitudinal sectional pieces hinged or strapped together in such manner as that the door as a whole may yield to follow any desired line of movement when it is not in use as a grain door and it is desired to place it out of the way, substantially as herein described.

Substitute C, Mar. 18, '78.

2nd. A grain door, D, constructed as above described and hinged or strapped so as to be flexible or yielding, for the purpose set forth, in combination with the guiding rods C, whereby, when not in use, it may be carried up and placed in the horizontal portion of said guiding rods, so as to be out of the way, substantially as described.

3rd. A grain door, D, constructed as described and provided with staples *c c*, in combination with guiding rods C and devices for affixing it to the top of the car, substantially as described and for the purposes set forth.

Amend't, Mar. 20, '78.

In testimony whereof I have hereunto set *in* this eighteenth day of February, 1878.

CHAUNCEY R. WATSON.

Witnesses:
EDMUND VAILLANT.
WILL M. FLOYD.

83 STATE OF INDIANA, } ss:
City of Indianapolis, County of Marion, }

Personally appeared before me, a notary public in and for said county, Chauncey R. Watson, who, being duly sworn, deposes and says that he verily believes himself to be the original and first inventor of the within-described grain door; that he does not know or

Words and sentences enclosed between rules erased in original.

believe the same was ever before known or used, and that he is a citizen of the United States.

CHAUNCEY R. WATSON.

Subscribed and sworn to before me this 18th day of Febr'y, 1878.
[SEAL.] SAM'L E. FRAZEE.

WASHINGTON, D. C., *March 1st*, 1878.

Hon. Ellis Spear, Commissioner of Patents.

SIR: Herewith please find power of attorney from Chauncey R. Watson, of Indianapolis, Ind., to De Witt C. Allen, Esq., of Washington, D. C., to be filed in place of the one executed in my name on his application for patent on "grain doors" for railway
84 cars, filed on the 23d ult. by Mr. Allen.

Mr. Watson was not aware of the law prohibiting employees of the Government from acting as attorney, and makes this correction at my suggestion.

Very respectfully your ob't serv't,

J. J. HAYDEN,
Of Indianapolis, Ind.

INDIANAPOLIS, INDIANA, *February 26th*, 1878.

Hon. Ellis Spear, Commissioner of Patents:

I hereby appoint De Witt C. Allen, Esq., of Washington city, my attorney to prosecute my claim for a patent on "grain doors" for railway cars, filed on the 23d inst., and revoke all other appointments heretofore made.

In testimony whereof I have hereunto subscribed my name and affixed my seal the day and year above written.

CHAUNCEY R. WATSON. [SEAL.]

Acknowledged before me, the undersigned, a notary public in and for the county of Marion and city of Indianapolis, Indiana, this 26th day of February, 1878.

[SEAL.] HENRY C. WILSON,
Notary Public.

85 ROOM 22. J. R. 3, 8, '78.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *M'ch 8th*, 1878.

C. R. Watson, care D. C. Allen, present.

Grain-car door. Filed Feb. 23, '78.

This "grain door" differs from Crooker's (May 26, '68, No. 78188, carpentry doors) "railroad car" only in the name and in this, that the upper portion of Crooker's door is cut off to make applicant's. The rods and staples are substitutes for Crooker's channel irons—obvious to any skilled workman.

Application is rejected on said patent.

E. W. CADY, *Ass't Ex'r.*
B. W. POND, *Examiner.*

WASHINGTON, *March 18th*, 1878.

Hon. Comm'r of Patents:

In the matter of my application for imp't in grain doors, filed Febr'y 23d, 1878, I hereby amend the specification by substituting for the matter from the word "my," line 22, to and inclusive of the word "use," line 27, page 1, the following:

86 This invention relates to improvements in the class of grain doors for cars, and the invention consists in the com-
A. bination, with a car, of an inside vertically sliding flexible or yielding door and guiding rods, whereby the door, when not in use, may be carried up and placed on the horizontal portion of said guiding rods, so as to be out of the way."

I further amend by inserting before the preamble of claim the following:

I am aware that a car door of similar construction, sliding in grooved ways, is old, and such I do not desire to claim,
B. broadly, as my invention. Said door, however, constitutes an outside or closing car door proper, and the car could not be loaded or used for bulk grain unless the grain is put in from the roof of the car, as the door completely closes the doorway or opening. Furthermore, said door is obviously objectionable for other reasons, viz: The grain will lodge or get in the grooved ways in which the door slides, binding or locking it so as to prevent its being raised, and also, being an outside door, the grain, pressing against it, would force or bulge the door outward, producing a similar effect as the grain lodging in the grooved ways, whereas my door, being an inside door
87 and not reaching the top of the doorway or opening, admits an open space at the top for loading in the grain, with an ordinary outside door, to be locked or otherwise secured after the car is loaded by also employing guiding rods for the door to slide upon, and, being an inside door, the defects incident to the gro-ved ways and an outside door before referred to are entirely obviated.

I still further amend by substituting *substituting* for the first and second claims the following:

1st. The combination, with a car, of an inside flexible or yielding and vertically sliding grain door and guid-
C. Substitute D, Mar. 20, '78. ing rods C, whereby said door, when not in use, can be carried up and placed on the horizontal portions of said guiding rods, out of the way, substantially as and for the purpose herein shown and described.

Respectfully submitted.

C. R. WATSON,
By att'y, DE WITT C. ALLEN.

Words and sentences enclosed between rules erased in original.

Room 22. J. R. 3, 20, '78.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *M'ch 20th*, 1878.

C. R. Watson, care De Witt C. Allen, present.

88 Grain-car door. Filed Feb. 23, '78.

It is not considered that Crooker in removing the upper few slats of his door would be making a patentable improvement on his own invention, albeit he might change its name and allege the result of loading in over the top of his door.

The change is an obvious one to any user of freight cars; further, the use of rods and eyes is old in this connection. See patent of H. C. Clark, Aug. 29, '71, No. 118,514 (carpentry doors), which further confirms the former action in relation thereto.

In regard to the clogging and binding referred to in argument, no clear or considerable results are seen to be accomplished by applicant's device over the reference such as should argue any invention thereon.

Ap-lication is rejected.

E. W. CADY, *Ass't.*
B. W. POND, *Examiner.*

WASHINGTON, *March* 21, 1878.

Hon. Comm'r of Patents:

In the matter of my application for imp't — grain doors, filed Feb'y 23d, 1878, I hereby amend the specification by substituting for the claims the following:

89 D. The combination, with a car, of an inside flexible or yielding sliding grain door, having staples *c*, and the vertical and horizontal bent guiding rods C, extending from the floor of the car upwardly and under the roof of the car, as herein shown and described, whereby said door, when not in use, can be carried up on the horizontal portions of said guiding rods, out of the way, substantially as specified.

Respectfully submitted.

C. R. WATSON,
By attorney, DE WITT C. ALLEN.

Room No. 22. J. R. 3, 23, '78.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *M'ch* 23, 1878.

C. R. Watson, care De Witt C. Allen, present.

Grain-car door. Filed Feb. 23, '78.

The application does not present patentable novelty over Crooker, cited.

In view of the state of the art as shown by the references cited, the *use of* eyes and rods for guiding the sliding door are the simple mechanical equivalents of the channel irons of Crooker. As
90 claim does not differ in a matter of substance from the preceding, it is a second time rejected.

E. W. CADY, *Ass't.*
B. W. POND, *Examiner.*

Memorandum of Fee Paid at U. S. Patent Office.

Inventor, C. R. Watson.
Patent to be issued to —— ——.
Invention, car door.
Date of payment, —— —, ——.
Fee, $20.
Solicitor, D. C. Allen.

$\frac{117}{168}$. 1878.

No. 203,226.

Chauncey R. Watson, of Indianapolis, county of Marion, State of Indiana.

Grain door for cars.
91 Rec'd Feb. 23, 1878.
Petition, " " "
Affidavit, Feb. 23, 1878.
Specification, " " "
Drawing, " " "
Model, " " "
Cert. dep., —.
1. Cash, $15, Feb. 23, 1878.
Add'l fee cert., —.
" " cash, $20, April 26, 1878.
Examined Ap'l 25, 1878. B. W. Pond.
2. Issue, Ap'l 27, '78. F. A. Seely.
4. Patented April 30th, 1878.
Circular, April 27th, 1878.
De Witt C. Allen, Wash'n, D. C.

Contents.

1878.

Application papers.
1. Application, —.
2. Rejection, M'ch 8th, '78.
3. Amend't- A, B, C, M'ch 18, '78.
4. Rej'n, M'ch 20, '78.
5. Amend't D, M'ch 20, '78.
6. " rej'd M'ch 23, '78.
Title: Improvement in grain-car doors.
Ex'd: E. A. M., H. M. H.

92 (2–175.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the files of this office of the file wrapper and contents in the matter of the letters patent granted Chauncey R. Watson April 30, 1878, number 203,226, improvement in grain-car doors.

In testimony whereof I, Benj. Butterworth, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this 28th day of November, in the year of our Lord one thousand eight hundred and eighty-four, and of the Independence of the United States the one hundred and ninth.

[L. S.] BENJ. BUTTERWORTH.

And the defendant also gave in evidence printed copies of the specifications and drawings of the following United States letters patent, to wit:

No. 78188, issued to M. M. Crooker May 26th, 1868, for an improvement in railway cars, and No. 118,514, issued to H. L. Clark August 29th, 1871, for an improvement in car doors.

Which several printed copies are in the words and figures following, to wit:

(~~Here follow diagrams marked pp. 9~~ & ~~9~~)

93 (3.) M. M. CROOKER. May 26th, '68.

UNITED STATES PATENT OFFICE.

MARTIN M. CROOKER, of Rutland, Vermont, assignor to himself and Azro B. Allen, of same place.

Letters Patent No. 78188, dated May 26, 1868.

Improved Railroad-Car.

The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, Martin M. Crooker, of Rutland, in the county of Rutland and State of Vermont, have invented a new and useful improvement in the construction of freight, baggage, and other cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a transverse section of a freight or baggage-car constructed in accordance with my invention, and showing its doors closed.

Figure 2 is a similar section of such a car, with its doors opened.

Figure 3 is an inverted horizontal section of the car shown in Figs. 1 and 2.

Figure 4 is a longitudinal section of the car.

Figure 5 is an enlarged view of a portion of one of the doors of the car.

Similar letters of reference in the several figures constitute corresponding parts.

The nature of my invention consists in constructing freight and baggage cars particularly with grooved ways, which extend from the bottom of the car to near the top thereof, and then run in nearly a horizontal line under the roof of the car, the vertical portions of said ways being at the margin of the spaces which permit the baggage and freight men to enter the cars, and the horizontal portions of one set of ways occupying a position directly under or over similar portions of the other set of ways; and, in combination with cars thus constructed, my invention also consists in fitting doors made of strips united together by flexible bands to the grooved ways of the cars in such a manner that access can be had to the cars from either side by applying an upward thrust or pull upon the doors, the mode of application being such that one portion of one door slides horizontally, or nearly so, through a guideway, which is under or above (as the case may be) another guideway in which a similar portion of another door slides.

My construction of cars obviates much of the labor and inconvenience, due to friction and weight, experienced in operating horizontally sliding doors of ordinary freight and baggage cars, and, beside this, less expense of constructing the cars is necessary, while at the same time an increase of room in a given gauge of car will be secured as the doors, when opened, will occupy a useless space in the roof of the car—that is, run in directly under the car roof.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

A represents a freight-car body, with a door space, *d*, on opposite sides thereof.

B B and B′ B′ are metallic grooved ways applied at the margin of the door spaces *d d* and partially across the car, immediately under the roof of the same, the vertical portions of the ways B′ B′ being on the inside of the car, just at the edge of the said spaces, and firmly bolted in place upon the car framing, or, if preferred, these vertical portions may be in the door space itself, as is the case with those of the ways B B. The horizontal portions of the respective sets of ways are also attached firmly to the car framing, being bolted to the opposite inner sides of strong cross-beams *a a* of the roof of the car in the manner represented.

In constructing the ways I prefer to make them of rolled sheet or plate metal, so that they shall be both light and strong.

C C′ represent doors for closing the door spaces before mentioned. These doors are made of light wrought-metal slats, which are rounded on one edge and concave on the other, the rounded edge of one slat

M. M. CROOKER.

2 Sheets—Sheet 2.

Railway Car.

No. 78,188.

Patented May 26, 1868.

Fig. 2.

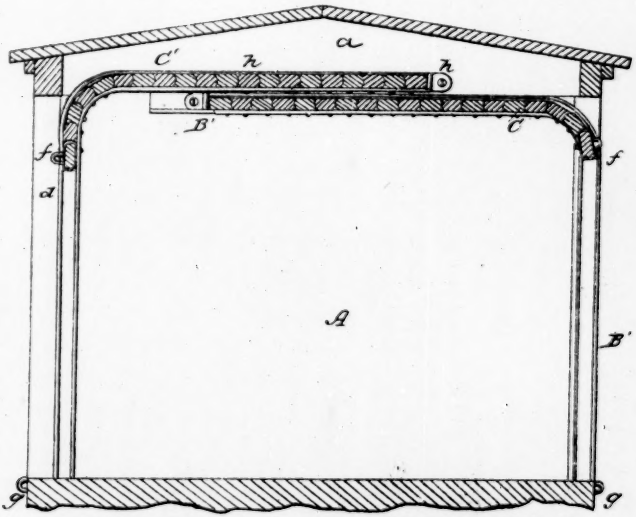
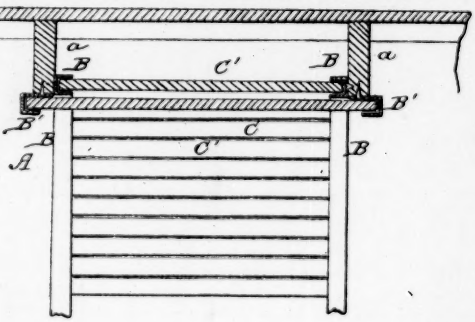


Fig 4



No. 309
Watson
C. J. Sh. L.
& C. Ry Co
H 95

Witnesses
R. J. Campbell
Chas. Klutz

Inventor
M. M. Crooker
by his agents
Brown, Bonsall & Munn

95
eet 2.

1868.

M. M. CROOKER.

Railway Car.

2 Sheets--Sheet 1

No. 78,188.

Patented May 26, 1868.

No. 309
Watson
6 J. & L.
& C. Ry. Co.
p. 94

Fig 1

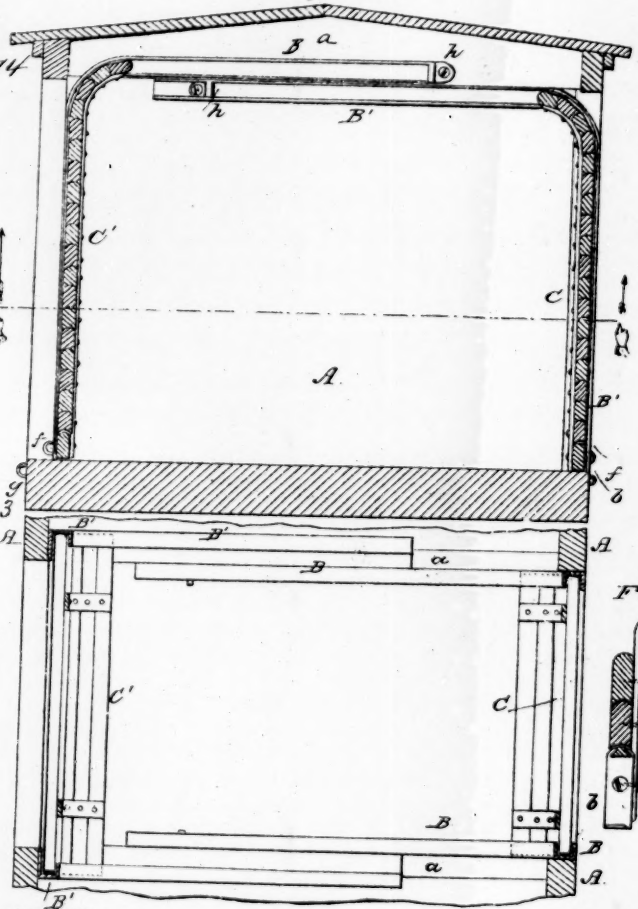


Fig 3

Fig.

Witnesses
R. F. Campbell
Edw. Clark

Inventor
M. M. Crooker
by his attys
Baron Howard & Howes

fitting the concave of another slat, as shown. The slats are united and held flexibly together by strong flexible straps of metal or other suitable material, which will allow the door to bend and slide around a corner or angle as it is opened or closed.

The doors thus constructed are arranged between the grooved ways so as to fit snugly thereto, but be free to move in the same.

94 If the slats of the doors are not made of metal, I shall face the ends of the leading or last slat of the series with metal, as shown in Fig. 5 and designated by the letter *b*. This metal facing or covering will slightly enlarge the slat at its end and therefore will fit the grooved way more snugly than the other slats of the series.

The object in thus facing the leading or last slat of each door is to make it serve as a guide for all the other slats, which are made somewhat smaller in size—that is, in thickness—than the grooved ways in which they move in order that there shall be but little, if any, difficulty experienced from "bind" between the ways and slats.

By facing wooden slats with iron I am enabled to make a door which will slide freely and work as well as a door made of metal, for the iron facings will expand in about the same proportion as *does* the iron ways, all other things being equal.

At the lower edge of the doors knobs or loops *f f* for opening and closing the doors are provided, and on the sills of the car staples *g g* are placed, so that by passing the loop of a padlock or other fastening through them and through the handle loops *f f* the doors may be locked; but other modes of locking may be resorted to if preferred.

I shall in some cases arrange pulleys under the roof of the car body and attach cords to the upper inner ends of the doors, pass them round the pulleys and out to the sides of the car, all in such a manner that the baggage or freight men may, by pulling the cords, raise or open the doors, and in case the doors are heavy the cords may be attached to a windlass.

I do not claim to be the inventor of a jointed device for closing window and door spaces in stores and dwellings, for I am well aware of the existence of such devices, but what I do claim as my invention and desire to secure by letters patent is—

A rail car in which its doors are flexible and are arranged to pass up under the roof and over one another, substantially in the manner and for the purpose described.

MARTIN M. CROOKER.

Witnesses:

W. G. VEAZEY.

V. C. MEYERHOFFER.

(Here follows diagram marked pages 94 & 95)

96 & 97 (5.) CLARK. Aug. 29, '71.

118,514.

UNITED STATES PATENT OFFICE.

HORACE L. CLARK, of Rahway, New Jersey.

Improvement in Doors for Railway Freight-Cars.

Specification forming part of Letters Patent No. 118,514, dated August 29, 1871.

To all whom it may concern:

Be it known that I, Horace L. Clark, of Rahway, in the county of Union and State of New Jersey, have invented a new and improved car-door; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in certain improvements connected with car-doors, as hereinafter fully described and subsequently pointed out in the claim; also, in an arrangement of devices for securing the lower edge of the door, held by vertical rods at the upper edge against being forced inward and allowing the grain to escape when loaded and swinging loosely when unloaded or carrying general merchandise.

Figure 1 is a longitudinal sectional elevation of a car-door having my improvements applied. Fig. 2 is a transverse section, and Fig. 3 is a front elevation of the outside of the door.

Similar letters of reference indicate corresponding parts.

A is the door, consisting of one or more boards or planks, suitably connected together, resting on the floor at one edge and against the end walls of the opening of the car on the insides, but not rising as high as the top of the opening, and connected at the upper edge by plates or bars B, having suitable holes, with the guide-rods C, for raising to the top of the car. These doors, commonly arranged in this way, have a small opening, D, through them, near the bottom, for discharging the grain by shoveling it through said opening into a spout resting on the car side. A large amount of grain is scattered over the spout and lost by striking against the walls of said opening and the spout outside, and flying away over the spout to the ground. I therefore propose to attach a short cloth spout, E, to the door at this opening, to extend sufficiently beyond the door over the spout commonly used to prevent such scattering, which it does most effectually.

When the hole D is to be closed by the slide F the flexible spout E is folded back into the hole, as indicated at G and H. A bar, I, may be placed across the hole at the inside of the door to prevent the spout from being turned outside in or being pushed in too far.

[20.]

No. 118,514. **H. L. Clark. Car Door.** Patented Aug. 29, 1871.

Fig. 1.

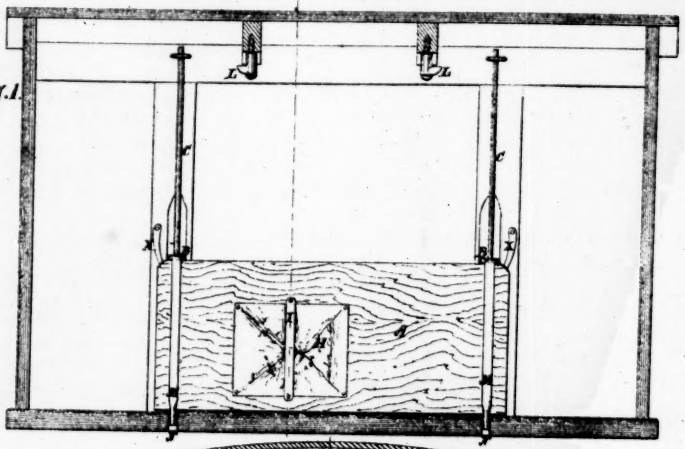
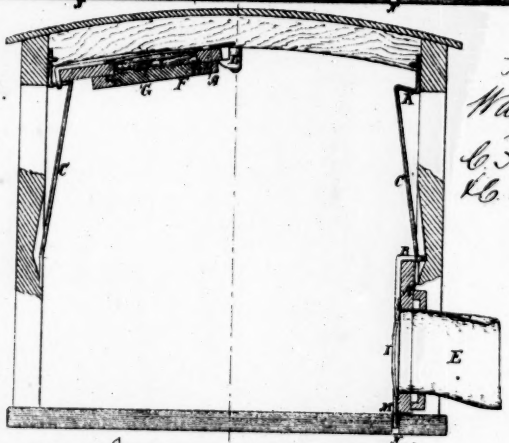


Fig. 2.



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& C. Ry. Co.
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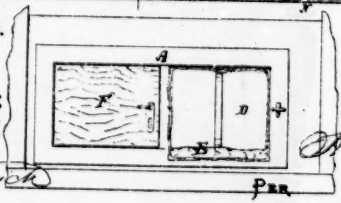
Fig. 3.



Witnesses:

A. Bonneweitzoff

Gustave Dieterich

Inventor:

H. L. Clark

Munn & Co

Attorneys.

I propose to have the rods C, on which the door slides upward, spring or incline outward, and form a shoulder at K for the eye-plates B to drop back upon when the door is raised, to hold it snugly up against the ceiling, the other edge being secured by buttons L.

Commonly these doors are left free, or not provided at the lower edges against being pushed inward, which is objectionable, because they are sometimes forced in by accident and work upward by the jarring of the car, and the grain escapes; or, when carrying general merchandise, they may not always be held snugly against the side of the car, and swing and rattle. I therefore propose to have the lower edges provided with bolts or stud-pins M and holes N, fitted in the car-floor suitably to receive the bolts and hold the door snugly against the car side. The holes are made to extend through the car-floor, so that they will not fill up with grain or other matter; and, in connection with the door so arranged, I provide the holding-pawls X or pins to hold the doors against rising.

Having thus described my invention, I claim as new and desire to secure by letters patent—

1. The combination, with door A, apertured at D and provided with flexible spout E, of the slide F and bar I, to enable said aperture D to be closed and the spout to be folded in the same plane with the door.

2. The slides B, stationary rods C, and buttons L, combined with and applied to the door A, as described, so as to enable said door to be turned up and supported against the ceiling, as shown and set forth.

3. The stud-pins M on the inner edge of the door and passing into holes N in the car-floor, combined with the guides B and pawls X, bearing against the upper edges of the door to hold it firmly in position.

The above specification of my invention signed by me this 7th day of June, 1871.

HORACE L. CLARK.

Witnesses:

GEO. W. MABEE.
T. B. MOSHER.

(Here follows diagram marked K. 96)

98 And thereupon, by agreement of parties, there were also introduced and given in evidence three wooden models of car bodies, which are duly forwarded with this record and which are marked, respectively, as follows, viz:

Model No. 1, marked "3093, M. D. T., C. R. Watson's patent grain door.

Model No. 2, marked "3170, C., R. I. & P. R'w'y, model of defendant's car."

Model No. 3, marked "model of Crooker's car"—as true and correct models of the several cars they purport to represent and as marked thereon.

And it was agreed that model No. 1 represented the Watson device.

That model No. 2 represented the cars used by the defendant before the beginning of this suit.

And that model No. 3 represented the device shown in the Crooker patent.

99 UNITED STATES OF AMERICA, } ss:
District of Indiana, }

I, Noble C. Butler, clerk of the circuit court of the United States for the district of Indiana, do hereby certify that the above and foregoing is a full, true, and complete transcript of the record in the cause of Chauncey R. Watson *v.* The Cincinnati, Indianapolis, St. Louis & Chicago Railway Company as fully as the same appears of record and remains on file in my office.

Witness my hand and the seal of said circuit court this 24th day of June, 1886.

[Seal Circuit Court of the United States, District of Indiana.]

NOBLE C. BUTLER, *Clerk.*

100 *Opinion of the Court.*

United States Circuit Court, District of Indiana. In Equity.

CHAUNCY R. WATSON *vs.* CINCINNATI, I., ST. L. & C. R'Y CO.

WOODS, *J.:*

This action is brought against the defendant company for the infringement of letters patent No. 203,226, granted to complainant for an improvement in grain-car doors, bearing date the thirtieth day of April, 1878. The bill alleges that the complainant's invention consists in the combination, in an ordinary freight car, of the solid sliding outside door and an inner flexible door, called a grain door, which is adapted to slide up overhead, when not needed for use, on rods or other equivalents, this grain door being of a height to fill not all, but only about half, the doorway opening. The answer of the defendant denies the value and novelty of Watson's invention, denies infringement, and alleges that the grain-car doors used by the defendant, as charged in the bill, were made under and in conformity with letters patent No. 78188, issued May 26, 1868, to Martin M. Crooker. In further exhibition of the prior art reference is made to other patents, including No. 118,514, issued August 29, 1871, to Horace L. Clark. General replication.

It is admitted by stipulation between the parties "that before the commencement of this suit the defendant hauled over its line of road, in the State of Indiana, freight cars belonging to the Chicago, Rock Island & Pacific Railway Company having a solid outside door like an ordinary freight car and an inner flexible sliding grain door of less height than the opening in the side of the car, the grain door sliding in grooves like the grooves shown in the patent of Martin M. Crooker of May 26, 1868, and the slats
101 composing the door being attached to each other by being strung upon wires passing through the slats."

The complainant's claim, as contained in his letters patent, is of the following tenor:

"The combination, with a car, of an inside flexible or yielding sliding grain door having staples *c* and the vertical and horizontal bent guiding rods C, extending from the floor of the car upwardly and under the roof of the car, as herein shown and described, whereby said door, when not in use, can be carried up on the horizontal portions of said guiding rods out of the way, substantially as specified."

His specification contains the following statements:

"This invention relates to improvements in the class of grain doors for cars, and the invention consists in the combination, with a car, of an inside vertically sliding flexible or yielding door and guiding rods, whereby the door, when not in use, may be carried up and placed on the horizontal portion of said guiding rods, so as to be out of the way, all as substantially hereinafter described. Referring to the accompanying drawings, A represents the body of a car having guiding rods C at either side of the doorway, fastened at their lower ends in the floor of the car, which rods extend upwardly and parallel with the inner frame of the car to within a short distance of its top, where they are curved and suitably braced to the central roof timber, B. D represents the grain door, constructed of longitudinal sectional pieces *d d d*, hinged together, as shown at *e e*. The upper and lower sections thereof, *d* and *d*, are provided with staples *c c*, which encompass the guiding rods C and serve to direct the movement of the doors when it is desired to place them out of the way at the top of the car. The guiding rods, at their lower ends, may be provided with screw threads, which work into metal plates provided with female threads, which latter, when affixed to the floor of the car, serve to hold the rods firmly thereto and in proper position to admit of the desired movement of the grain doors. The grain doors, when at the top of the car, may be securely held there out of the way by a hook, *f*, locking into a staple on the upper section of *d*.

"The great desideratum to be obtained in the use of a grain door is that, while it may serve its proper purpose when the car is loaded with grain, it may with facility be moved out of the way when the car is empty or loaded with other freight without being detached from the car, whereby its loss or injury is rendered improbable. It is always in such position that its use as a grain door may be resorted to whenever needed. The bottom section, *d*, of the door may be shod with an iron plate to prevent injury thereto when being raised to allow the egress of the grain.

"I am aware that a car door of a similar construction, sliding in grooved ways, is old, and such I do not desire to claim, broadly, as my invention. Said door, however, constitutes an outside or closing car door proper, and the car could not be loaded or used for bulk grain unless the grain is put in from the roof of the car, as the door completely closes the doorway or opening. Furthermore, said door is obviously objectionable for other reasons, viz., the grain will lodge or get in the grooved ways in which the door slides, binding or locking it so as to prevent its being raised, and also, being an

outside door, the grain pressing against it would force or
102 bulge the door outward, producing a similar effect as the grain lodging in the grooved ways, whereas my door, being an inside door and reaching the top of the doorway or opening, admits an open space at the top for loading the grain, with an ordinary outside door, to be locked or otherwise secured after the car is loaded. By also employing guiding rods for the door to slide upon and being an inside door the defects incident to the grooved ways and an outside door before referred to are entirely obviated."

The record shows that the complainant's application for a patent was rejected and after amendment was again rejected by the examiner, because it did not present patentable novelty over Crooker's patent, granted 10 years before, but on appeal the examiner-in-chief reversed this decision, saying:

"The invention in this case is small and the claim is correspondingly limited. It consists of a combination of various instrumentalities not found in either of the references. Applicant's car, as a whole, is adapted by convertibility to uses not compatible with the cases cited without injury. In this case the flexible door is applied in addition to the usual slide doors, and, where coarse freight is to be carried, the flexible shutters are secured in place at the top under the roof of the car."

Counsel for complainant, as understood by the court, both in his oral and printed argument, admits or concedes that the sliding door described in his patent does not differ essentially from the sliding door described by Crooker, but insists that the patent consists in the combination, in an ordinary freight car, of the solid sliding outside door and an inner flexible door. In his brief he says that "until the date of Watson's invention nobody conceived the idea of combining in the same freight car a flexible grain door with a solid outside door." I do not think this a proper construction nor, if it were, that the patent could stand upon it. There is nothing in either specification or claim concerning "ordinary freight cars" nor solid sliding outside doors, and in the claim nothing about outside doors at all, unless inferred from the description given of an inside door. If, however, such an inference is permissible and the patent must or may be construed to consist in such a combination of inside and outside doors as is asserted, it cannot be upheld, because it
103 does not involve invention, but consists in a mere aggregation of parts, each to perform its separate and independent function substantially in the same manner as before combination with the other and without contributing to a new and combined result. The outside door certainly remains unaffected in construction and in use, and the inner door is the same as the Crooker door, with a few slats left off or taken off by design or by accident; and whether done in one way or the other the change cannot reasonably be called invention, unless the distinction between mere mechanical skill and inventive genius is to be disregarded.

Flexible and rigid doors, outside and inside doors, were all known, and rigid doors, outside and inside, had been used in combination, the inside door being made to fill only part — the opening in

order to facilitate the loading of the grain; and yet it is now insisted that the mere substitution, in this known combination, of the flexible sliding inside door, in itself not new, constituted invention. If that is the meaning of the decision of the examiners-in-chief, with due respect I am constrained to dissent. If it be conceded that the complainant's "car, as — whole, is adapted by convertibility to uses not compatible with the cases cited without injury," the adaptation, so far as it consists in the combination of the inside and outside doors, of whatever form of construction, was either not new or, if new in respect to the use of the flexible door, did not involve invention. It is not true, however, that this convertibility to different uses is confined to the complainant's car. The Crooker car, in a measure, manifestly has the same capability, whether it has ever been so used or not. In the first place, the Crooker door, as described in his specifications and as shown in the model, is constructed and moved in grooves on the inside of the car, and therefore may be used with an outside door. It is not liable under the pressure of the grain to bulge outward, as suggested in complainant's specification;
104 and it is evident that one of these doors (although filling the entire opening) might be used as an inside grain door upon any car, the grain being loaded from the opposite side over another door filling only part of the opening, and with the grooves extended from one side to the other of the car the single door could be shifted as convenience of loading and unloading should require; and if the Crooker door, at full height, can be so used upon either side of a car, and to that extent accomplish the same kind of results and advantages to a degree which are effected by the use of complainant's contrivance, it is plain that without invention it may be separated in the middle and one piece used upon one side of the car and the other upon the other side. It is conceded, and whether conceded or not it is certainly true, that the Crooker door, made as described in his patent, may be used as an inside door, at the same time with or in combination with the ordinary outside door. The suggestion embraces nothing patentable, and, this much done, it is an easy process of reasoning—and reasoning is not invention—to extend the grooves continuously from side to side of the car, divide the slatted door in two, and have the car used by the defendant, which is claimed to be an infringement. With the Crooker and Clark patents in view, and with a knowledge of the difficulties to be overcome, it is a plain process of reasoning, involving but moderate mechanical skill, to devise the defendant's car, and unless the complainant's combination embraces something more it was not patentable.

Indeed it seems to me almost too clear for discussion that if the complainant's patent can be upheld upon any construction whatever it must be restricted to the particular devices described, combined in the manner stated in his specification; and, so restricted, even though it be deemed to embrace the outside as well as the inside door in the combination, it has not been infringed,
105 because the inside doors used by the defendant are held and moved in grooves without the presence or aid of the rods and staples, which are described as a part of the complainant's device

and expressly embodied in his claim. It may be that there is no essential difference mechanically between the grooves and the rods and staples; but, if so, the complainant is estopped from saying it, because he has expressly claimed one and disclaimed the other, and this alone is a sufficient ground to rest the decision of the case upon. By the terms of his specification and claim he has made the rods and staples a part of his combination, and has expressly disavowed the use of grooves as an equivalent, and consequently may not now, whatever otherwise might have been his right, insist that the grooves are an equivalent of the rods, or that the rods and staples are not essential to his combination. This being so, the defendants have not used the entire combination, and consequently have not infringed.

I, Noble C. Butler, clerk of the circuit court of the United States for the district of Indiana, hereby certify that the above and foregoing is a true and correct copy of the opinion of the court in the above-entitled cause now on file in my office.

In witness whereof I have hereunto set my hand and affixed the seal of the said court this 24th day of June, 1886.

[Seal Circuit Court of the United States, District of Indiana.]

NOBLE C. BUTLER, *Clerk.*

Endorsed on cover: Indiana C. C. U. S. No. 309. Chauncey R. Watson, appellant, *vs.* The Cincinnati, Indianapolis, St. Louis & Chicago Railway Company. Filed August 5, 1886.

Office Supreme Court U. S.
FILED.
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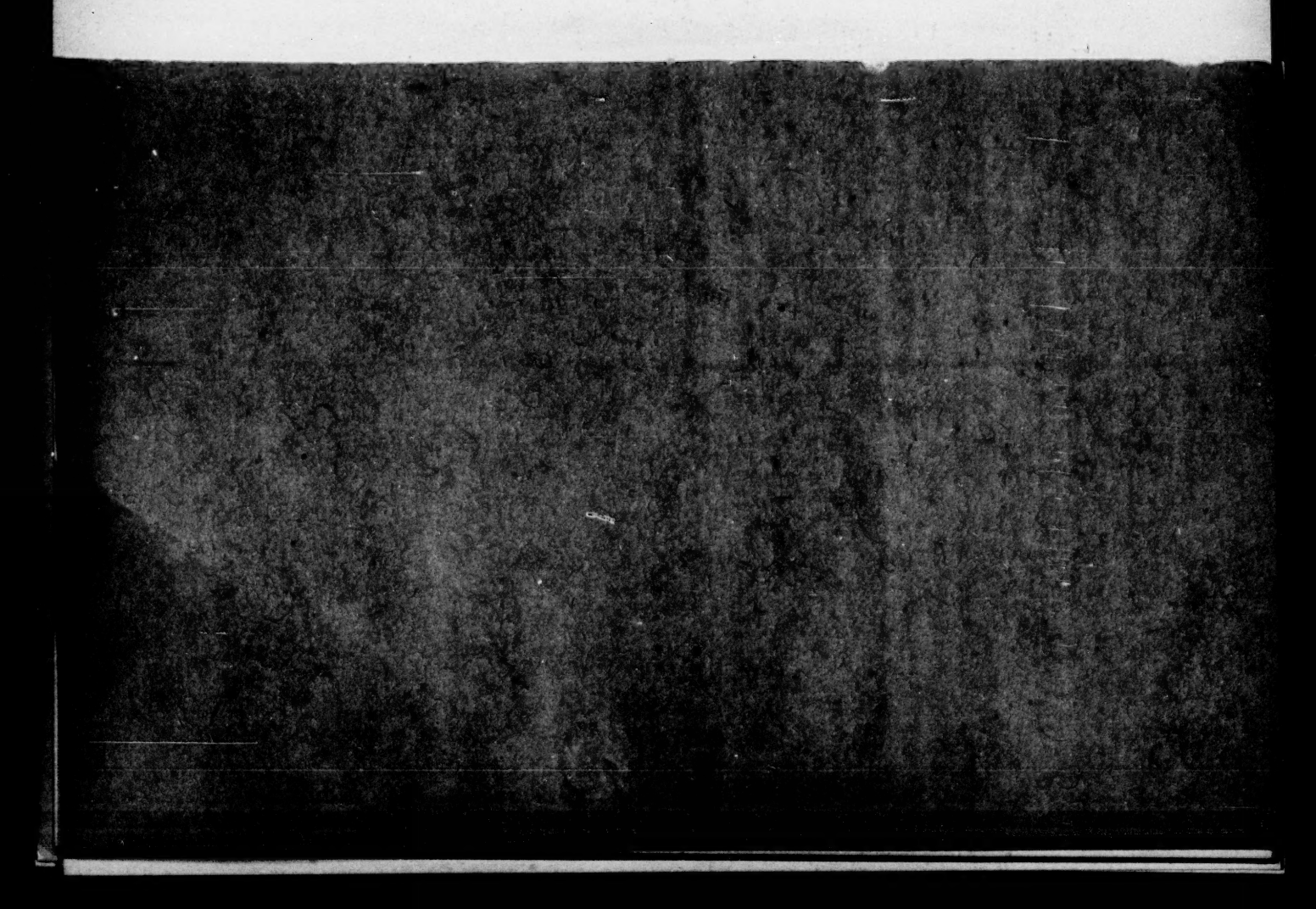
JAMES. H. McKENNEY.
CLERK.

United States Supreme Court.

CHAUNCEY R. WATSON,
vs.
THE CINCINNATI, INDIANAPOLIS, ST. LOUIS AND CHICAGO RAILWAY COMPANY.
No. 309.

Brief and Argument for Appellant.

CHARLES P. JACOBS,
Solicitor.



United States Supreme Court.

CHAUNCEY R. WATSON,
vs.
CINCINNATI, INDIANAPOLIS, ST. LOUIS AND CHICAGO RAILWAY.

No. 309.

ARGUMENT FOR APPELLANT.

This action is brought by the appellant, Watson, against the defendant company for the infringement of Letters Patent No. 203,226, granted to him for an improvement in grain-car doors, bearing date the 30th day of April, 1878.

The bill alleges that the complainant's invention consists in the combination in an ordinary freight-car of the solid sliding outside door, and an inner flexible door, called a grain door, which is adapted to slide up over head, when not needed for use, on rods or other equivalents, this grain door being of a height to fill not all, but only about half the doorway opening.

And it alleges that the defendant has been using and operating upon its railway line cars of this class, belonging to the Chicago, Rock Island and Pacific Railway, and that the last mentioned railway has been co-opera-

ting with one Dennis VanLiew, of Aurora, Illinois, in manufacturing and using these infringing cars.

The answer of the defendant admits the issuing of the letters patent to complainant, but denies that the complainant's patent is to be construed to cover a car for the transportation of grain, or other freight, constructed substantially like an ordinary freight-car, having an outside door for closing the car, and provided with an inside flexible, or yielding sliding grain door, adapted to be carried up on guide rods, or their equivalents, over head and out of the way, and under the roof of the car. (See record, page 5). The answer further denies that the alleged invention of Watson is of any value; and denies further that Watson was the original and first inventor of the thing patented in his patent, and avers that it was old at the date of Watson's invention, and had been shown in certain letters patent of the United States, fifteen in number, describing them, among which is a patent issued to Martin M. Crooker, May 26, 1868, numbered 78,188, and one to H. L. Clark, August 29, 1871.

The answer further avers that the grain car doors referred to in the complaint, and as used by the defendant, were made under and in accordance with the patent of Martin M. Crooker, above mentioned; and that the Crooker patent was afterwards assigned to the said Dennis F. VanLiew, and it was with his license and consent that the said cars were so equipped with the said doors.

The defendant further avers that the only difference between the Crooker door and the complainant's are, that Crooker's slide in grooves and have their slats fas-

tened together by a continuous wire running through them, while the complainant's slide on rods passing through staples and are fastened together by ordinary hinges; that they are both inside doors, and with the exception of the above differences, operate in substantially the same way, and that in view of the said Crooker patent the complainant's door contains no patentable invention and is no improvement thereon.

The answer further denies any infringement of Watson's patent.

To this answer the complainant filed the general replication, putting the case at issue.

The following stipulation was filed in the case:

STIPULATION.

It is hereby stipulated by and between the parties to the above entitled suit, as follows:

First. The complainants may offer in evidence, upon the hearing, without further proof thereof:

1. Letters patent, No. 203,226, issued to Chauncey R. Watson, April 30, 1878.

2. Model of a freight-car box with Watson's device attached, as described in his said patent.

3. Model of a freight-car box with sliding door, as shown in letters patent issued to Martin M. Crooker, May 26, 1868, No. 78,188.

4. Model of freight-car box with grain-door, as shown in cars used by defendant, as hereinafter specified.

Second. The defendant may in like manner offer in evidence, upon the hearing, without further proof thereof:

1. Copies of the letters patent named and specified in its answer heretofore filed in this cause, and where the said patents have been printed by the patent office, the drawings and specification may be given in evidence without certification, but those not thus printed are to be certified in the usual manner.

2. Certified copies of the file wrapper and contents of the letters patent granted to Chauncey R. Watson, April 30, 1878, and Martin M. Crooker, May 26, 1868.

Third. And it is further agreed that before the commencement of this suit, the said defendant hauled over its line of road, in the said State of Indiana, freight-cars belonging to the Chicago, Rock Island & Pacific Railway Company, having a solid outside door, like an ordinary freight-car, and an inner flexible sliding grain-door, of less height than the opening in the side of the car; the said grain-door sliding in grooves, like the grooves shown in the said patent of Martin M. Crooker, of May 26, 1868, and the slats composing said door being attached to each other by being strung upon wires passing through said slats.

Fourth. It is further agreed that if any question arises as to the correctness of said models, above specified, the Court may call in a competent expert to testify thereto.

GEORGE PAYSON,
Defendant's Solicitor.

C. P. JACOBS,
Solicitor for Complainant.

September 30, 1884.

(Record pp. 7–8.)

Afterward the complainant took the testimony of

certain witnesses: George F. David, Charles W. Jenkins, John L. McFarland, William H. Metcalf, Chauncey R. Watson, before an examiner duly appointed in this behalf, and the same are in the record.

The models referred to in the stipulation are brought herewith before the Court, properly designated for examination.

QUESTIONS INVOLVED IN THE CASE.

These are three in number:

First—Was the invention of Watson patentable, in view of the state of the art prior to his application?

Second—What is the proper construction of Watson's patent?

Third—Has the defendant infringed thereon by the use of cars of the Chicago, Rock Island & Pacific Railroad Company, as set forth in the bill of complaint?

We will consider these in their order:

THE PRIOR STATE OF THE ART.

In its answer the defendant averred that there was no invention made by Watson, but that all the material and substantial parts of his device were old and well known before the date of his invention, and were shown and described in a number of United States patents of prior date, fifteen in all, setting forth their numbers and dates of issue, (Record, p. 5), but on the hearing these were all abandoned and were not even presented to the Court below, save two, the patent to M. M. Crooker, May 26, 1868, and that to Horace L. Clark, August 29, 1871, and of these neither one exhibits the combination shown in Watson's patent, and neither of them ever

were used save as an experiment, and were abandoned as worthless immediately afterwards. And yet, the whole defense practically rests on these two dead and buried devices.

The state of the prior art, therefore, so far as this case is concerned, resting on the Crooker and Clark patents, it becomes necessary to consider them in detail.

THE CROOKER PATENT.

The drawings of this device face page 39 of the Record. In his specification Crooker describes his invention thus:

"The nature of my invention consists in constructing freight and baggage cars particularly with grooved ways, which extend from the bottom of the car to near the top thereof, and then run in nearly a horizontal line under the roof of the car, the vertical portions of said ways being at the margin of the spaces which permit the baggage and freight men to enter the cars, and the horizontal portions of one set of ways occupying a position directly under or over similiar portions of the other set of ways; and, in combination with cars thus constructed, my invention also consists in fitting doors made of strips united together by flexible bands to the grooved ways of the cars in such a manner that access can be had to the cars from either side by applying an upward thrust or pull upon the doors, the mode of application being such that one portion of the door slides horizontally, or nearly so, through a guideway, which is under or above (as the case may be) another guideway in which a similar portion of another door slides."

The patentee says in his specification: "My *construction* of course *obviates much of the labor* and inconvenience due to friction and weight, experienced in *op-*

erating the horizontal sliding doors of ordinary freight and baggage cars," showing clearly that Crooker's invention was intended to form an outside door only, and thus dispense with the ordinary outside sliding door in freight and baggage cars, Crooker's car having no other door whatever, and it closes the entire door opening. The doors on either side are adapted when thrown up to lap each other under the roof, for the door, being of full length, requires such lap.

This device was not intended for a grain-door at all; the idea of constructing a grain-door did not enter Mr. Crooker's head. His device, as constructed, could not possibly be used for a grain door; it was intended for a closing-door proper, and to provide a door which should dispense with the ordinary solid freight-car door. All the witnesses state that it could not be used for a grain-door; that reconstruction and alteration was necessary; and that such a door, when used alone, was of no value for any purpose; that no car had ever been seen by any of them on any railroad, constructed like Crooker's car; that it was evident that if one ever existed *it was speedily abandoned, and Crooker's invention must be relegated, as the Courts say in a case hereinafter cited, to the limbo of abandoned experiments; it has gone into the scrap pile with other wrecks, "long, long ago."*

Crooker's car an abandoned experiment.

The drawings of Crooker all show what his invention was; that it was a door intended to close the entire doorway opening; could be locked when down, at the bottom, by means of padlocks adapted to pass through staples (GG) and loops (FF,) showing clearly that it was an outside door and nothing else. He says himself, in

his specification, that his construction obviates much of the labor and inconvenience, *due to friction and weight, experienced in operating horizontally sliding doors of ordinary freight and baggage doors;* and he says that CC' *represent doors for closing the door-spaces* before mentioned. Surely, in face of such declarations as these, it cannot be seriously argued that Crooker's door was anything else but an outside door, intended as such, and for no other purpose, and that he had no idea of constructing a grain-door at all, and describes none.

Crooker's car had but one door.

Crooker's car has but one door on each side, and this simply a closing door, adapted to be locked to prevent the freight in the car from being stolen.

Watson's car has two doors on each side; the one an inner door arranged and constructed so as to allow grain to be loaded into the car over its top, after it has been put into place, and the other a solid outside door which is adapted to be locked when shut, to secure the freight from being stolen or lost.

The one car (Crooker's) is only intended to be, and can be used for but one purpose, that of loading bulk freight. The other car (Watson's) is convertible, as the patent authorities say, by throwing up the grain-door overhead out of the way; the car then becomes an ordinary freight-car with an ordinary solid outside door, adapted to be used for bulk freight. On the other hand, when the grain-door is pulled down in place, Watson's car is then adapted to be loaded with grain.

Watson's car convertible.

It will be seen, I think, that the Crooker device which is clearly shown in the model now before the Court, marked "Crooker's Model," was in itself of no

value whatever, it never came into use, it died still-born; it required ingenuity and invention to change it; it required other elements to be added (when changed) to it before it could be the equivalent of Watson's device. On the other hand, the grain-doors which had preceded Watson's were defective—defective in construction and bungling and defective in operation. Something better was evidently required. Inventors were all at work. Patent after patent was issued, and for ten years there was an earnest effort made by inventors to supply something in the shape of a grain-door for cars, which should make the grain-car complete, efficient, easily managed and serviceable. This Watson did, and the defendants and their confederates by adopting this door have practically conceded both the novelty and utility of Watson's invention. As an old writer says: "Imitation is the sincerest flattery," and the fact that the very parties who have been engaged for years past in trying to make a successful grain-car, and who have taken out several patents for grain-cars, have been compelled to abandon their inventions and take up Watson's, is an argument in favor of his patent that is conclusive, and refutes all the technical objections made by counsel against its patentability.

Other grain doors failures.

Inventors all at work to make something better.

WHAT THE WITNESSES SAY ABOUT THE CROOKER CAR.

First—G. F. David. The first witness, Mr. George F. David, has been engaged in the railway service for twenty-four years, and for eighteen years of that time has had charge of loading freight-cars, averaging from sixty to one hundred and twenty cars per day. A part of his duty, he says, has been to see that grain-doors

G. F. David.

were properly provided in cars, and that they were in proper condition to load grain. He describes what is meant by a grain-door, and says that it is a door attached to the inside of an ordinary freight-car, to keep the grain in bulk from running out of the door openings; that it is always used in connection with an outside rigid door, and that the grain-door proper must be of less height than the door-opening, in order to allow the inside door to be first placed in position before the bulk grain is loaded in the car; that the bulk grain could not be loaded until the grain-door was thus put in place. The first grain-doors that he ever handled were made simply of rough lumber, that is to say, boards were secured to the desired height on the inside of the car and against the sides, so as to shut up about half of the door-opening, and they were either fastened in place by being nailed to the car, on either side of the doorway, or else the doors were run in slots attached to the door frames, with a key on top to fasten them. These doors thus made were not permanent parts of the car, but the railway company furnished lumber, and the persons loading the car with grain fastened the door inside. Later, the shipper provided the lumber and put in the grain-door, and then charged the expense thereof to the company, this expense being from thirty-five to forty-five cents for each door, making from seventy to ninety cents for each car. These temporary doors thus made were always destroyed or carried away by persons when the grain was unloaded, and were never returned so as to be used a second time, and when the car was to be reloaded another door had to be provided, and the expense was met as in the case of the first one. After a

What grain doors are.

Temporary grain doors.

time permanent grain-doors began to be attached to cars, because they were more economical, saving the expense of a new grain-door every time the car was loaded with grain. All these first grain-doors were made upon the same principle, and were fastened by being slipped down in slots. The same cars, which, by the use of grain-doors were thus adapted to be loaded with grain, were also necessarily used for loading and carrying bulk freight, such as boxes, barrels and lumber, and no railroad either provides or keeps cars for grain only.

Grain doors before Watson's.

The witness continues by saying that all the grain-doors that he had ever seen, or known to be used in cars, were solid and not flexible at all. Being shown the complainant's model of Watson's grain-door, he says that the first freight-car having a grain-door of that kind he ever saw was about two years ago, and that before that time only solid doors were used. He states the advantages in a door like Watson's, that it is easier handled, less liable to be destroyed, and entirely out of the way in the car, that it does not reduce the inside capacity of the car. Being shown a model of Crooker's door, he states that he never saw a freight-car with a door like that at all; that within a year and a half past flexible grain-doors have begun to be put into freight-cars, and he thinks that their use is increasing, because he sees more of them now than he ever saw before.

Watson's flexible door new in the trade.

Never saw Crooker's car.

ADVANTAGES OF WATSON'S DOOR.

Speaking further of the advantages of a flexible grain-door, like Watson's, which is adapted to be slid up on rods or in grooves, overhead and under the roof

of the car, he says that it is certainly preferable to a grain-door that swings in and out, for the reason that space is economized in the car in loading baled, barrelled or boxed goods. Again, that when freight-cars are loaded with bulk freight, at a terminal point, from one side of the car, the grain-door on the other side being down in position, freight is always either jammed or set close against the grain-door, and if the position of the track at the point of delivery requires that the car should be unloaded from that side, the grain-door must be gotten out of the way, but if it is like Watson's it may be shoved up out of the way very readily, without injuring the door or its fastenings, while if the door has to be lifted over to one side, or swung inward, the freight must first be gotten out of the way before the door can be moved; that this often occurs, and that a fair estimate of the number thus required to be unloaded would be one-third of the cars; that a door like Watson's has the further advantage of a longer life, when in use upon freight-cars, than any other kind of grain-door; that as regards solid doors, they will sometimes make two or three trips from Indianapolis to New York, and return uninjured, but that often after one trip they come back injured; that these solid doors are often used for running boards, for transporting freight from the platform to the freight-car, and *vice versa*; that the flexible door cannot be so used; that being easily slid up out of the way, it is not likely to be wedged in the loading of freight, or even if it were, it could be pried up out of the way, and the higher it goes the easier it could be placed in position; while with a swinging door it

Solid grain doors break off and are lost.

would be impossible to do anything until you could get the full length of the door cleared away, and that five or six years ago he demonstrated this fact to Mr. Van-Liew. (Record, pp. 13–17.)

J. L. McFarland.

Second—John L. McFarland. This witness says that he has been in the freight department of railroad service for thirteen years, and has had charge of the loading and unloading of freight, and has handled on a fair average, each day, during that time, about twenty-four or twenty-five cars; that the same cars, that is the ordinary box car, is used both for loading grain in bulk, and other freight; that to adapt a freight-car for use as a grain-car, a grain-door is required in addition to the ordinary door of the car; and he defines a grain-door to be a door between the space of the car and the outside door, something on the inside to close the door-way in order to load the grain; that this inside, or grain-door, must be entirely separate from the solid outside door; that this outside door must be the full height of the car; that the grain-door must be of less height, that is to say, that a part of the door-opening must be left unclosed, else the grain can not be loaded in the car, there being no opening to put it in; that this opening must be over the grain-door; that grain-doors of some sort or other have been used for the past twenty years, and that he never saw a flexible grain-door made of slats, so as to be pushed up overhead out of the way, until the last year and a half or two years; that the grain-doors heretofore in use were solid, and were made free to swing on hinges, or to be fastened by rods and chains; that when these grain-doors were not in use

What a grain-door is.

Flexible grain doors a new thing.

they were turned out of the way against the side of the car, or swung up on hooks against the roof.

VanLiew's solid grain door worthless.

He says he is acquainted with the VanLiew solid grain-door; that it is very heavy, and that the weight of the door bends the rods and throws them out of position; that he often sees the VanLiew door either partly or wholly broken off, and lying on the floor of the car.

Flexible and solid grain doors compared

He compares the solid with the flexible grain-door, and illustrates the advantage of the latter as follows: If the car is loaded on the south side and unloaded from the north side, the parties loading the car leave the grain-door on the north side down in place, and when it comes to be unloaded from that side, the men have to go in the car from the opposite side and move the freight back out of the way in order to open the grain-door, or lift it off its hinges; while with a flexible door, if that is left down, it can be readily shoved up over head out of the way; there is nothing to bind it and keep it from moving at once. There is a great difference between the door in the loss of time and the loss of lumber, or grain-doors, to the company; that this is a very heavy expense, being about seventy cents per car every time a temporary lumber grain-door is supplied. (Record pp. 18–21.)

C. W. Jenkins.

Third—Charles W. Jenkins. This witness states that he has been in the railway service for twenty years, has had charge of the freight house and the loading and unloading of freight-cars for the Pan Handle Company for the past ten years, and has handled about fifty-five cars per day; that an ordinary freight-car, to be used for loading grain, has to be provided with a grain-door

in addition to an outside door, the grain-door being intended to keep the grain in place and the outside door to close and secure the car; that the outside door is of the same height as the side of the car, and the grain-door is usually about three or three and a half feet in height; that the grain-door is made of less height than the door opening, in order to load the car, and is put in place before the grain is put into the car; that the wheat or corn is let in usually with spouts into the door opening, over the grain-door; that during the past four or five years the VanLiew grain-door has been used as a general thing; that it is not a flexible, but a solid door; that during the past five years many cars have been loaded with grain that were not provided with permanent grain-doors, and that the elevators used common boards for that purpose, nailing them across the door on the inside, half height of the opening, and that the railroad company had paid such expense, amounting to about ninety cents per car; that these grain-doors, thus made of rude lumber, never came back to be used a second time, but were always lost or destroyed on their first trip; that within the past few years the capacity of freight-cars has been increased from fifteen to twenty tons, and that the permanent grain-doors have been made larger to fit the size of the opening; that a long bar has been used to hold such grain-door in place, and when the door is down this bar keeps the door from falling over upon the car floor; that these large, solid doors frequently twist off from their hinges and fall into the car; they are also often broken and the securing bar bent by loading freight; that in using a car pro-

How grain is loaded into cars.

Larger cars made solid grain doors useless.

vided with a permanent grain-door for ordinary bulk freight, the grain-door is necessarily swung back out of the way; that often in loading freight-cars with bulk freight, the grain-door is left down on the opposite side from which the car is loaded, then if the car is to be unloaded from that side at the other end of the road, or the terminal point, that the grain door has to be pried out or the merchandise has to be lifted over it to get the freight out.

Crooker's car never seen or used.

Could not be used for grain car.

The attention of the witness being called to the model of the defendant's car, he says that the first car of that kind, having a sliding grain-door, was about three years ago. His attention being called to the model of Crooker's car, he says that he never saw a freight car built like that, and that it could not be used for loading grain.

Solid doors expensive and worthless.

VanLiew's previous doors a failure.

Witness further says that the ordinary life of the VanLiew solid grain-door, upon a car in general use, is about two years; that on that very morning he testified he examined eight cars on the side-track, five of which had the VanLiew door, put in at the time they were built, but one or two of these cars showed unbroken grain doors, the others were all broken; one of the doors was lying at the bottom of one car, and two others at different ends of cars, all thrown completely off their connections, and all of these were the VanLiew solid grain doors; that he gave his men instructions to watch closely for loose grain doors, and to be careful not to take them out of the cars, because when taken out they were liable to be mislaid and forgotten; that these VanLiew doors frequently became loose entirely from

their fastenings, and are used as rolling boards or gangway planks for loading freight from the platform into the car; that his opinion is that cars having flexible grain-doors like Watson's are more complete than the VanLiew grain-door, or any other grain-door, for general purposes. When the door is shoved up over head the car can be loaded with bulk freight, such as merchandise, cotton, and tobacco, without interfering with the door, but when the VanLiew door is used, especially if the car be loaded with hogsheads of tobacco, the VanLiew door will be very much in the way.

(Record pp. 24–28.)

W. H. Metcalf.

Fourth—William H. Metcalf. This witness is the weigh-master at Elevator A, Indianapolis; has been engaged in shipping grain in this city for the past eleven years; says he has seen and examined a great many kinds of grain doors; that he has seen solid doors and flexible doors, and that the first flexible grain-door he ever saw was about two years ago; that the other kinds used at that time were solid doors; that grain doors were made of rough lumber at first, nailed inside the car half the height of the doorway; that they were provided by the elevator companies, and that the railway companies allowed the elevator companies the expense, running from thirty-five to fifty cents per door; that these temporary doors made of boards never came back to be used a second time—they were either lost or used for kindling wood; that a grain-door is a door provided on the inside in addition to the outside door; that the outside door closes the entire door opening, while the grain-door is about half that height, or not

Old grain doors solid, worthless and expensive.

quite half; that the grain is loaded over the grain-door into the car, and that a door which shut up the inner opening could not be used for a grain-door at all.

The Crooker car worthless for grain.

His attention being called to the Crooker car model, he says that it could not be used for a grain-door at all. He describes the weakness of the ordinary solid grain-door that has been used for many years past in freight-cars as follows: That the trouble with grain-doors is, that when the car is loaded and you want to open the door, you have got to have some place to get rid of your grain in order to allow the door to swing back; that the VanLiew door is thrown back, and when you want to hoist the door you can not throw it back, because the grain is in the way; "the consequence is," he says, "I always have my men jam it right in to get the door off, and when we unload it we throw the door out and it is never used again." He says on the other hand, that a grain door like Watson's, which could be shoved up overhead, could be easily hoisted up even when the car was loaded solid with grain, "and then your men can set right in to unloading the car;" that the Watson flexible door overcomes the disadvantages or defects of the solid doors which he has described. He is then asked this question (Question 24): "Suppose you wanted to load a car with ear corn, in bulk, and you had a VanLiew rigid door, what trouble would you experience?" Answer: "I had that experience this last week; I can unload from a car and a half to two cars of ear corn, or oats, with a door that throws up under the roof, quicker than I can unload one with a VanLiew door that swings back or throws back; a

VanLiew's solid door a failure.

throw-back is worse than a swing-back." He further says that from his observation during the past year more cars are made with sliding flexible grain-doors, like Watson's device, than before. That for some years he handled from forty to one hundred and fifty cars per day; that during the past year he has handled from twenty to fifty cars per day, it having been a dull season.

(Record pp. 28–31.)

C. R. Watson.

Fifth—Chauncey R. Watson, the complainant in this case, and the person to whom the letters patent sued on were issued. He has been engaged in the fast freight railway service for eleven years past; that before the date of his invention several sorts of grain-doors were in use, none of which were flexible sliding doors like his, but all were solid doors. He describes the use of the grain-door as being for keeping the grain in the car when loaded; that it should be from thirty-three to thirty-six inches high, and that this height will admit of the loading in a large car of from 36,000 to 40,000 pounds of grain; that it is an inside door, being separate and distinct from the outside door, or the car-door proper, which is fastened and sealed after being loaded; that at the time he made his invention there were from ten to twelve lines of railway entering the city of Indianapolis, and that no flexible door was in use upon any of them; that for a long time elevators loading grain into cars provided their own grain-doors, and were allowed therefor by the railway companies at the rate of seventy cents per car; that he has never known of a single case where the lumber was returned for use a second time; that he is acquainted with the VanLiew

No flexible grain doors in use when Watson made his invention.

solid door, that it was probably nearer a fixture to the car than any in use prior to the flexible door; that the door, to a certain extent, is an obstruction to the car; that if cars were to be loaded with grain only, it would be a very good door; that it is not lasting; that very often they are broken in loading miscellaneous freight —boxes, barrels, hogsheads, and marble; that in the larger car, now being constructed, when provided with the VanLiew rigid doors, the door is so heavy that it will not sustain its own weight, but falls in the car. It is safe to say, he adds, that a car will make but two or three trips with this door in it, the increased height not being provided for in it, by rods of sufficient size.

The VanLiew solid door not lasting.

Referring to the models he states that the one marked "Watson's Grain-Door" is a fair representation of his device, that the model marked "Defendant's Car" is a fair representation of the car used by the defendant's road, before this suit was begun; that he examined those cars used by the defendant's road, personally himself, and that the model was made under his direction; that he never saw a freight-car in use, upon any road, with the door like the model marked "Crooker's Car;" that it cannot be used for grain; that the increase in the number of cars using the flexible yielding grain-door is very great, of late; he thinks that four out of every five twenty-ton cars, now being built with a grain-door, are provided with a flexible door; that the advantage of the flexible door is that it admits of the better loading of cotton or baled goods, it saves space inside the car, saves expense to the railroad companies, and is more easily handled; and that the flexible door will last much longer than a solid grain-door. (Record, pp. 22–24.)

Crooker's car never used.

Could not be used for grain.

Increasing use of flexible grain doors since Watson's patent.

SUMMARY OF THE EVIDENCE OF THE WITNESSES.

Thus, the witnesses, all of whom are railroad men of many years experience, fully and entirely agree upon these points:

1st. That Crooker's car never was made, or used, or heard of, upon railroad lines.

2d. That it is not a grain car at all—and could not be used for a grain car.

3d. That prior to Watson's patent, solid doors for grain cars were alone known or used—and not a single car had ever been equipped with a flexible grain-door.

4th. That soon after Watson's patent was issued, flexible grain-doors began to come into use, and are now fast superseding all other grain-doors.

These are stubborn facts, and outweigh *tons* of theory on the other side.

5th. Let it be noted that VanLiew, patentee of a grain-door, cited in the answer among the fifteen others, is the man who abandons all old devices to construct a grain car on Watson's plan, licenses the defendant, and when attacked for infringement, ostrich-like sticks his head in the sand and rubbish of the old Crooker patent, and imagines he is wholly concealed from his pursuer.

THE CLARK PATENT.

The only other patent brought before the Court below, is that of Clark, August 29, 1871. This is for a solid grain door, adapted to slide upward on rods and to be folded up against the ceiling of the car, and secured by buttons. It is not a *flexible* door at all, but a solid door, and the only thing it has in common with Wat-

son's device, is the iron rods upon which the door slides up. These rods are and were old before the date of Clark's patents, and are clearly the same as the grooves in which Crooker's door slides.

Clark's car a failure.

But Clark's device fell flat—was never used—like Crooker's it died in its birth. It was evident that something else had to be done before the permanent grain-door should arrive. The boards commonly used were not a part of the car; were not fixtures; they were broken, lost, or stolen on every trip made by the cars. Yet the cost was enormous in the aggregate. In one year one large system of lines paid out a quarter of a million of dollars for lumber for temporary grain-doors, as the witnesses all say, each trip it cost from seventy cents to a dollar to equip a car with these boards.

As the cars increased in size and tonnage, the solid grain-doors, those made by VanLiew, and others, and connected to the car as fixtures, became unwieldly and unmanageable. They broke from their hangers and hinges, and were lost, or used as loading planks. At this junction Watson's device appeared. It met with cold reception at first, for the men who had the monopoly of this business were busily pushing their own wares. But as time passed by, they had to give up, one by one, their clumsy and antiquated devices. The half high flexible door, a fixture in the car, a barrier for the grain,

The two doors a double barrier.

and the outside solid closing door, the two thus forming a double barrier, was seen to be the only valuable, only practicable device.

And so unscrupulous hands appropriated it, galvanized the old corpse of Crooker, and set it up as a scarecrow, and a menace to fight off the real inventor.

And this is the defence they bring before this Court.

It is by no means a new one. It is older than this litigation. It was raised in the Patent office when Watson's application was under consideration. *And it was held by the Board of Examiners on appeal to be no defence at all.*

II. THE CONSTRUCTION OF WATSON'S PATENT.

We are thus brought to the discussion of the second question, which is this: "*What is the proper construction of Watson's patent?*" The record of his application has been stipulated into the case, and is before the Court; from this it appears that his application was filed on the 23d day of February, 1878, that it was rejected by the principal examiner on the 8th day of March, 1878. He refers to two prior patents, namely, H. Clark, No. 118,514, dated August 29th, 1871, and the patent of M. M. Crooker, No. 78,188, dated May 26th, 1868, both of which are included in the list cited in the defendant's answer and in the examination heretofore made in this brief. The examiner, in his letter of rejection, holds that the rods and staples upon which Watson's door slides up are the equivalents of Crooker's grooves, or channels, and are only a change, such as would be obvious to any skilled workman. In this the examiner was undoubtedly right; so far as the rods and staples were concerned they were old, and so were Crooker's channels and the grooves old, and the one is undoubtedly the equivalent of the other as a mechanical device; but the examiner overlooked the real invention of Watson, which was not a question of rods or grooves, but was the combination in a freight-car having an outside rigid door, of an inner flexible sliding grain-door.

Rods and grooves equivalent.

WATSON'S DESCRIPTION.

This is clearly set forth in Watson's specifications. He says: "The great desideratum to be obtained in the use of a grain-door is, that while it may serve its proper purpose when the car is loaded with grain, it may with facility be moved out of the way when the car is empty or loaded with other freight, without being detached from the car, whereby its loss or injury is rendered improbable, and it is always in such position that its use as a grain-door may be resorted to whenever needed." Again he says: "I am aware that a car-door of similar construction, sliding in groove-ways, is old, and such I do not desire to claim broadly as my invention; *said door, however, constitutes the outside or closing car-door proper, and the car could not be used for, or loaded with bulk grain, unless the grain is put in from the roof of the car, as the door completely closes the doorway or opening.*"

Again he says: "*Whereas, my door being an inside door, and not reaching the top of the doorway, or opening, admits an open space at the top for loading in the grain, with an ordinary outside door to be locked, or otherwise secured, after the car is loaded.*" Watson also states, it is true, that he considers the rods for sliding the door upon to be preferable to grooves, but whether the one or the other is preferable is a matter of mere convenience, and was not the essence of Watson's invention.

WATSON'S CLAIM.

His claim is as follows: "The combination with a car of an *inside* flexible, or yielding, sliding grain-door, having staples (c), and the vertical and horizontal guiding rods (C), extending from the floor of the car up-

wardly, and under the roof the car, as herein shown and described, and whereby said door *when not in use* can be carried up on the horizontal portions of said guiding rods, out of the way, substantially as specified."

On the 23d of March, 1878, the examiner rejected Watson's application for a second time, on the same references to Clark and Crooker, and an appeal was taken to the board of examiners, and on the 22d day of April, 1878, the decision of the principal examiner was reversed by the board, and the following opinion was rendered."

No. 4,724. U. S. PATENT OFFICE, APRIL 22D, 1878.

Before the Examiners-in-Chief, on Appeal.

Application of Chauncey R. Watson, for a patent for an improvement to grain-doors for cars, filed February 23d, 1878.

The invention in this case is small, and the claim is correspondingly limited. It consists of a combination of various instrumentalities not found in either of the references. *Applicant's car, as a whole, is adapted by convertibility to uses not compatible with the cases cited, without injury.* In this case the flexible door is applied in addition to the usual slide-doors, and when coarse freight is to be carried, the flexible shutters are secured in place at the top under the roof of the car.

The decision is reversed.

V. D. STOCKBRIDGE,
R. L. B. CLARK,
Examiners-in-Chief.

It will be seen that this opinion of the board of examiners, though brief, puts Watson's invention on the right basis, and substantially acknowledges that his invention was new and patentable—that there was a clear

departure from the devices and methods which had preceded him, and that he was entitled to a patent on his application.

This decision of the board of examiners contains the gist of the whole matter, and substantially supports the allegations of the bill of complaint, when it says, "Applicant's car, as a whole, is adapted, by convertibility, to uses not compatible with the cases cited, without injury." "*In this case the flexible door is applied in addition to the usual sliding doors*, and when coarse freight is to be carried, the flexible doors are secured in place at the top, under the roof of the car."

It is clear, therefore, that the board of examiners of the patent office, in considering the application of Watson for letters patent, the drawings, specification and claim together, held that it must be taken to cover a freight-car provided with a solid outside door, for closing the car, and an inner flexible grain-door of less height than the door opening, and provided with means for sliding it up overhead and out of the way, all combined. *And under this decision, and this construction of the application, the letters patent were ordered to be issued to Watson*; and this, I insist, is the proper construction of Watson's patent, and that any other construction than this would do violence to the language employed in the specification and claim. The higher authorities of the patent office, upon a full presentation of the matter to them have settled this as being the true construction, and have declared that Watson's combination was an invention within the meaning of the patent law.

Watson's patent issued under this construction.

It is argued, in the face of this decision of the pat-

ent office authorities, that Watson's combination was not an invention, and that it would be a simple and easy matter to make a grain-door out of the door invented by Crooker, or to substitute a sliding grain-door for the solid grain-doors theretofore used; in reply to which it may fairly be said:

First—That if this change would be a simple and easy matter, it has been made so by the very fact that Watson, in his patent, has shown how to do it, and how to make the doing of it useful, and thereby has given to it all the simplicity which now belongs to it. It was not a simple and easy matter prior to the time that Watson did it, and if he made it simple in 1878, he, and not the defendant company, nor Mr. VanLiew, is entitled to the benefit of the invention so made.

Second—If it was a simple and easy matter to do this, why was it not done between 1868, the date of the Crooker patent, and 1878, the date of the Watson patent? The mere fact that the entire railway freight service, including elevator companies, grain-shippers, freight-loaders, car-builders and railway mechanics of all kinds waited ten years for Watson's invention, is strongly indicative of the conclusion that the making of it was not so simple a matter as the appellee's attorney would wish the Court to believe.

And this point is one on which considerable stress has been laid by the Courts in determining the question of invention.

THE LAW UPON THIS POINT.

This Court has repeatedly sustained patents for inventions where a better result was produced, although

the differences in the later inventions and those shown in the prior patent were small. In *Clough* v. *Gilbert & Barker Manufacturing Company*, 106 U. S. 166, which was a suit for a patent on a gas burner, the defendants relied mainly upon a burner made by one Barker for which he had applied for a patent. Barker tried to control the flow of gas through the slit in the burner, and Clough tried to control it further back, and although there were many points of likeness between the two, the Court held that the Barker device did not anticipate Clough's device, saying:

"The structure (Barker's) was not designed for the same purpose as Clough's. No person looking at it or using it would understand that it was to be used in the way Clough's is used, and it is not shown to have been really used and operated in that way."

Now apply this language to the case at bar. Crooker's door was something like Watson's. It was flexible, it was intended to slide up overhead out of the way. It was not intended for a grain-door, and no person looking at it or using it would understand, or ever did understand that it was to be used in the way Watson's is used, and it is not shown to have been really used and operated in that way.

This case was decided against Clough by the Court below, and this Court reversed the decision, saying:

"There never having been any valve arrangement applied to regulate the flow of gas in such a combination, *the premises on which the decision of the Court below proceeded failed.*"

In a later case between the same parties (106 U. S. 178) a gas burner made under Letters Patent granted to

John F. Barker was the one used by the defendants. There were very many points of likeness between the complainant's and the defendant's burner, but the Barker burner was made in two pieces, and was less expensive to make, the shell revolving, and not the burner with it, in regulating the gas, and the Court said:

"We think, from the evidence, that these modifications were new and useful, and sufficient in court to sustain the patent. The burner in the form patented by Barker appears to have superseded the burner in the form patented by Clough, and after Barker had introduced his burner into use, Clough commenced to make for market, burners of the same form patented by Barker."

Applying the doctrine of that case to this, the old Crooker door was a full-sized door, completely covering the opening into the car. It was not intended for a grain-door, and could not be used for a grain-door. The form patented by Watson, viz., the use of a flexible door of half height, in combination with an outside closing door, appears to have superseded all the devices previously used or known. After Watson had introduced his device into use, VanLiew commenced making grain-door cars for the market, substantially in the form patented by Watson.

Another case is that of the *Consolidated Safety Valve Company* v. *The Crosby Steam Gauge and Valve Company*, 113 U. S., 157. This was an appeal from the decision of Judge Lowell of the Massachusetts Circuit, wherein he held that the device of the appellees did not infringe the patent issued to Richardson. The defendants intro-

duced in evidence several English and American patents, and in considering these the Court said:

Blatchford, J. "In regard to all the above patents, adduced against Richardson's patent of 1866, it may be generally said, that they never were, in their day, and before the date of that patent, or of Richardson's invention, known or recognized as producing any such result as his apparatus of that patent produces, as above defined. Likenesses in them, in physical structure, to the apparatus of Richardson, in important particulars, may be pointed out, but it is only as the anatomy of a corpse resembles that of the living being. The prior structure never effected the kind of result attained by Richardson's apparatus, because they lacked the thing which gave success. They did not have the retarding stricture which gave the lifting opportunity to the huddled steam, combined with the quick falling of the valve after relief had come. Taught by Richardson and by the use of his apparatus, it is not difficult for skilled mechanics to take the prior structures and so arrange and use them as to produce more or less of the beneficial results first made known by Richardson; but, prior to 1866, though these old patents and their descriptions were accessible, no valve was made producing any such results."

A corpse resembles a living being.

In applying this language to the case at bar, and paraphrasing it slightly, it will read as follows:

"In regard to all the above patents, adduced against Watson's patent of 1878, it may be generally said that they never were, in their day, and before the date of that patent, or of Watson's invention, known or recognized as producing any such result as his apparatus of that patent produces, as above defined. *Likenesses in them, in physical structure, to the apparatus of Watson, in important particulars, may be pointed out, but it is only as the*

anatomy of a corpse resembles that of the living being. The prior structure never effected the kind of result attained by Watson's apparatus, because they lacked the thing which gave success. Taught by Watson, and by the use of his apparatus, it is not difficult for skilled mechanics to take the prior structures and so arrange and use them as to produce more or less of the beneficial results first made known by Watson, but, prior to 1878, though these old patents and their descriptions were accessible, no grain-door was made producing any such result."

Again, in *Seymour* v. *McCormick*, 19 Howard, 96, the Court say:

"It is exceedingly difficult to draw a line between what may be regarded by the eye as a small improvement or invention, and one of magnitude. Oftentimes improvements and discoveries the most important in their consequences and in their beneficial effects on the business interests of the community, are among the simplest ideas of the mind."

Important inventions often simple.

In *Seymour* v. *Osborne*, 11 Wall., 516, the Court said:

"Particular changes may be made in the construction and operation of an old machine so as to adapt it to a new and valuable use not known before, and to which the old machine had not been, and could not be, applied without those changes and under those circumstances, if the machine, as changed and modified, produces a new and useful result, it may be patented, and the patent will be upheld under existing laws.

Such a change in an old machine may consist merely of a new and useful combination of the several parts of which the old machine is composed, or it may consist of a material alteration or modification of one or more of the several devices which entered into its construction, *and whether it be the one or the*

other, if the change of construction and operation actually adapts the machine to a new and valuable use not known before, and it actually produces a new and useful result, then a patent may be granted for the same, and it will be upheld as a patentable improvement."

To the same effect is *Smith* v. *Nichols*, 21 Wall., 119:

"A patentable invention is a mental result. It must be new and shown to be of practical utility. Everything within the domain of the conception belongs to him who conceived it. The machine, process or product is but its material reflex and embodiment. A new idea may be ingrafted upon an old invention, be distinct from the conception which preceded it, and be an improvement. In such case it is patentable."

The same doctrine has been repeatedly announced in the Circuit Courts, some of the cases cited having been tried by members of this Court.

In *Magic Ruffle Co.* v. *Douglas*, 2 Fisher, 330, the Court said:

"A subject-matter to be patentable must require invention, but is not necessarily the result of long and painful study, or embodied alone in complex mechanism. A single flash of thought may reveal to the mind of the inventor the new idea, and a frail but simple contrivance may embody it. Some inventions are the result of long and weary years study and labor, pursued in the face of abortive experiments and baffled attempts, and finally reached after the severest struggles, while others are the fruit of a single happy thought."

In *Clark Patent Company* v. *Copeland*, 2 Fisher, 221, the doctrine is thus laid down with regard to the degree of mental labor and inventive skill required in the work of invention:

Simplicity in Invention an Excellence.

"The law has no nice or rigid standard, there must be some inventive skill exercised, but the degree of that skill is not material. It not unfrequently happens in the progress of mechanical arts, that the time arrives when the whole atmosphere of inventive thought is quickened with the life of an approaching discovery; that many lines of investigation and experiment converging for a long time toward the point, almost but not quite reach it, when at last some mind by a happy thought supplies some new element, or instrument, or mode of organization, and instantly gives birth to the organized idea."

A happy thought often completes an invention.

The case of *Poillon* v. *Schmidt*, 6 Blatch. 299, involved the validity of Gale's patent for a process of making pistons, or other similar joints, steam-tight. It consisted in using a grooved surface, with an opposing smooth surface, the grooves to be made even on the surface of the piston, or on the interior surface of the cylinder. Directions were given for the best shape, size and relative position of the grooves, but the grooved surfaces were not claimed as a part of the invention, they having been used before, as the specification stated, for a similar purpose in air-engines. The defense was the prior invention of the air-engine, in which similar grooves filled with air made a packing that made the engine air-tight. Blatchford, J., held that, nevertheless, the patent was valid, and overruled the defense.

In *Regan* v. *Goodwin*, 3 Sumner, 514, it was said that the simplicity of the invention was far from being an objection to it, and might constitute its great excellence and value; indeed, to produce a great result by very small means, unknown and unthought of, is not unfrequently the peculiar characteristic of the very highest class of minds.

In *Crandall* v. *Walters*, 9th Fed. Rep. 659, the Court states the matter thus:

"Almost all inventions that become the subject of patents are the embodiment and adaption of appliances that are old, and if the article so produced is new and useful, it is patentable, although the old article could have easily been altered or adapted so as to form the new one."

Alteration of old device patentable.

This case is squarely in point, and is destructive of the defense in this case.

A co
ble

Again:

"If a novel and useful result has been obtained, neither the simplicity of the structure nor the greater or less amount of invention or intellect employed as an element, is of importance in determining the validity of the patent." *Barnes* v. *Strauss*, 2 Off. Gaz. 62.

That nobody made it before, evidence of invention by Watson.

And the fact that for ten years after the date of Crooker's patent, and until the date of Watson's invention, nobody conceived the idea of combining in the same freight-car a flexible grain-door with a solid outside door, though numerous inventors were at work on grain-doors, is of itself evidence of invention on Watson's part.

As the Court says in *Dederick* v. *Cassell*, 9th Fed. Rep. 306: "If an article is new and useful, the fact that no mechanic ever made it is a sufficient answer to the suggestion that it did not require invention." Indeed, it may be said, that in the universal experience of Courts, the best and most meritorious inventions are generally the simplest, and that so far from simplicity being an objection to an invention, it is one of its highest merits; or, in other words, the more simple the in-

vention is, the more meritorious it becomes, and the stronger is the obligation imposed on the Courts to sustain the patent therefor, and to give to the inventor thereof the full benefit of his invention.

It is no answer to the complainant's action, to say that one element of his combination can be found in one prior patent, and another in another; it is probably unnecessary to cite any authority to support this doctrine, for it is elementary patent law.

See *Worswick Mfg. Co.* v. *Steiger*, 17 Fed. Rep. 250.

Again, the Courts have never made simplicity a test of invention, except that it enhances the merit of the invention and its subsequent patentability. But as directly bearing upon the question at issue, and as indicating the universal tendency of the Courts, in considering patents of this kind, the following doctrines may be stated and authorities cited: "The simplicity of an invention in utility and effect over what preceded it is proof tending to establish the fact of novelty."

Birdsell v. *McDonald*, 6 O. G. 682.

Stilwell & Bierce v. *Gas Co.*, 7 O. G. 829.

"If the result is obtained in a better mode than was before known, this is evidence of invention."

Detroit Co. v. *Penchard*, 9 Fed. Rep. 293.

Wood v. *Packer*, 17 Fed. Rep. 650.

Whenever a change, or device is new, the Courts look with favor on it. The law in such cases has no nice standard by which to gauge the degree of mental

power or inventive genius brought into play in originating the new device.

Middletown Co. v. *Judd*, 3 Fish. 141.
Hoe v. *Cottrell*, 1 Fed. Rep. 603.
Collins Co. v. *Coes*, 3 Fed. Rep. 225.

Slight changes producing better result, patentable.

A slight change sometimes, of a known machine, or in some of its parts, will effect surprising results, and to protect a party who has produced this new and useful result is one of the objects of the patent laws.

Turrill v. *I. C. R. R.*, 3 Fish. 330.

See also the bobbin and spindle case, *Pearl* v. *The Ocean Mills*, 11 O. G. 2.

In this case a slight change in the form of the bobbins and spindles of cotton machinery was held patentable, although the actual material change was very slight, and after it had been made it seemed obvious.

In *Isaacs* v. *Abrams*, 14 O. G. 861, which was a patent for an improvement in railway track brooms, the defendant argued that brushes with an uniform surface being well known, no invention was required to construct one with an uneven surface.

Judge Lowell sustained the patent, holding that the change involved invention.

In *Eppinger* v. *Richey*, 14 Blatch., 307, Judge Shipman says:

> The utility of the patented articles has been evinced by its large sales, and by the unanimity with which rival tobacconists have commenced its manufacture; and I am of the opinion, 1st, That however simple the change in the method of manufacture

apparently may have been, yet it was a change which required invention for its accomplishment; 2d, That the article was patentable.

The case of *Wallace* v. *Noyes*, 13 Fed. Rep., 172, was this: Wallace brought suit against Noyes for infringement of certain letters patent issued to him for improvements in making spoons and forks. The defendants denied any patentable novelty, 1st, Because every one of the mechanical operations stated by the patentee, had been successfully practiced in the German-silver spoon manufacture; 2d, That they were practiced in the order pointed out in the patent, and 3d, That there was no novelty in the successful use of the plating process upon the homogeneous steel. They said, by way of argument, that all the methods of the Wallace patent had been known several years before his patent issued; that all the difference between Wallace and his predecessors was, that he had both patience and the disposition to use time in the employment of old and well-known processes for the manipulation of steel, which was said to have advantages over the iron for this purpose; that there was no invention; that there was an application merely of familiar ideas, and general mechanical improvement, and business skill and energy; that there was no striking out in a new path in the field of invention; that he did, substantially, what other people had done, and that he had exercised patience and energy to make his work a commercial success. The Court, Judge Shipman, in deciding the case, says:

"A durable silver-plated steel spoon was a thing practically unknown in the art; it was wanted. When produced the manufacturers knew that it would fill an empty space in the market;

they desired to produce it, and the skillful and prosperous mechanics of the neighborhood set themselves, with more or less energy, to accomplish this result. Nobody but the complainant succeeded. The complainant did. He attained the result by a succession of old processes which though separately old, had not been practically grouped together in the order in which he used them, and the only fair conclusion is that there must have been patentable novelty in his invention."

Success the true test of merit in a device.

The patent was sustained and an injunction decreed.

In *Davis* v. *Fredericks*, 19 Fed. Rep., 99, suit was brought upon a patent granted to the complainant for an improvement in scoops. One of the defenses relied upon was "want of invention."

The Court, Wheeler, J., says:

"The first scoops, so far as shown, were struck up by hammering in one piece, except the handle. Then they were made of sheet metal, cut into shape in one piece, bent up and fastened at the joints ready for the handle. They had oval surfaces and would not rest firmly and hold their contents securely when set down. The orator's scoop was made from one piece of sheet metal cut into such peculiar shape that when bent up and fastened it had a flat surface on which it would rest, when set down, full or partly full, so as to hold the contents securely, and the acting parts were well shaped and strengthened by making them of this form.

To fix upon the necessary pattern for the sheet metal to produce this result must have required calculation and experiment beyond the practice of mere mechanical skill and good workmanship, which seems to be entitled to be classed as inventive. A new thing was produced, better for some purposes than had been produced before, although many skilled workmen had been practicing the making of those things before, and making

Success over prior failures evidence of invention.

as good as they could without reaching this. He hit upon this while no one else did. Although it appears to be easy of accomplishment when seen, this success seems to be within the benefits of the patent law."

Brown Manufacturing Company v. *Deere et al.*, 21 Fed. Rep. 709, was a suit brought on letters patent issued to W. P. Brown, May 15, 1877, for improvements in couplings for cultivators. The object of the invention, briefly stated, was to provide a coupling connection between the forward end of the cultivator beam and the axle of the cultivator frame, so that a mechanical force, as that of a spring, might be utilized in either raising or lowering the cultivator beam, without intering with the freedom of the lateral movement. To this end Brown put what he calls a pipe-box, which was, in fact, a short iron sleeve, over the axle of his cultivator, so that the pipe-box would rotate easily upon such axle. To this pipe-box, by means of what he called a stirrup and a projecting arm, he attached the lower end of a band-spring, the upper end being connected to the cultivator frame above. The plow-beams were hinged in a jaw, connected with the pipe-box below the spring. When the plow was lifted, by means of the handles, the pipe-box would rotate on the axle, and the spring exerting its force would hold the plow after it was so lifted, and the plow could be moved laterally from side to side, hinged as it was to the pipe-box, without twisting or otherwise affecting the lifting or holding spring at all.

It was insisted by the defense, and ably argued by their attorneys, that there was no invention in this, that

the pipe-box, or sleeve, was old; that a pipe-box with an arm attached, was old; that a lifting-spring, was old, and that each one of these elements, as applied to cultivators, was old, and that there was nothing more than mechanical skill in combining them in one machine. But the Court, Judge Blodgett, thought otherwise, and held that, although every substantial part of Brown's device was old, and had been used in some shape or other in cultivators, yet, as the result was better in some respects than had been before achieved—as they had not been combined in any cultivator in the way shown by Brown, that it indicated invention. The patent was sustained, and there was a decree for injunction, and accounting.

Old devices in a new combination patentable.

USE BY DEFENDANTS, EVIDENCE OF PATENTABILITY.

Another principle, well settled, is that the use by the defendant of an infringing device is, of itself, evidence of patentability of the device so used by him, in preference to others which he might have used.

The case of *The Western Electric Manufacturing Company* v. *The Chicago Manufacturing Company*, 14 Fed. Rep. 691, illustrates this principle. This case was tried before Judge Blodgett, and the defense was "want of novelty," and that no invention was displayed in the defendant's device. The Court says, in the course of his opinion, page 693:

"The proof shows that since the Hahl and Gray patents this device has been generally adopted for use in elevator cars, and this adoption and the fact that almost simultaneously quite a number of inventors had given their attention to the subject-

matter covered by the device now before us, is evidence that it required something more than mere mechanical skill to accomplish the result attained by this patent. The circumstances that the value of the new article was immediately recognized, and that it supplied a want long felt, but not before met, should have due weight, and in this case go far to resolve all doubts in favor of the sufficiency of invention."

Value of new device recognized, and its adoption evidence of invention.

Another case is *Ward* v. *Grand DeTour Company*, 13 Fed., Rep. 696, which was also tried before Judge Blodgett. The defense assailed the validity of the patent for want of novelty. Judge Blodgett says:

"The proof, however, shows not only that many others had endeavored, unsuccessfully, to accomplish what he achieved, but also, that his device was at once accepted by the public, and the fact of success and acceptance by the public in a field where so many others had tried an failed, is sufficient evidence that his device was both new and useful, and the result of inventive genius."

Miller v. *Pickering*, 16 Fed., Rep. 540, was a suit for the infringement of a patent for an improvement in car springs, and the defense was that the complainant's patent possessed no patentable merit.

McKennan, J., (Butler, J., concurring), said:

"The brevity of the patent on which this suit is founded is one of its excellencies, especially as it is not deficient in cleanness and simplicity in the statement and description of the object, nature and form of the invention. The object of the patentee, was to produce a car spring, combining in an eminent degree the qualities of lightness, strength and elasticity. It is made from a bar of metal of requisite form, which is rolled on its edge in the shape of a coil around a mandrel; the necessary

effect of this treatment is to increase the ordinary thickness of the inner edge of the bar, and so make it thinner at the outer edge. This is essentially a characteristic feature of the invention; hence the claim for a coil-edge rolled spring, the inner edge of which is of greater thickness than the outer edge. It is urged that as edge rolling of metals and of spiral springs were well known in the arts before the date on the patent in question, the alleged invention described in it is without patentable merit. This is sufficiently answered by the facts that Pickles was the first to conceive the idea of constructing a spring of the peculiar form described in his patent, whereby important results were accomplished, and that the public has attested its superior utility and value by adopting it instead of the other springs then in use. These facts imply the exercise of sufficient inventiveness to sustain a patent. Nor is the objection to the patent on the ground that the device described in it was made by A. H. Campbell, and indicated in the English patent of Henson, any better foundation. Campbell assisted Nichols in making experiments to produce springs of different shapes, in 1869. One of these was like Pickles', but it does not appear that it was tested, or used in any way, or that it has been heard of since; the public never derived any benefit from it, and it is clear that it must be assigned to the category of abandoned experiments."

Verdict of the public a test of invention.

The patent was sustained and an injunction decreed.

Now, after consideration of these cases, it seems to me clear that neither the defendant nor VanLiew had any right to adopt Watson's invention. They undoubtedly did have the right to use VanLiew's solid grain-door, or Clark's solid grain-door, or any of the other grain-doors which had been described and patented before the date of Watson's invention, or was known in actual use upon railways; they might, too, have used

Crooker's door, closing the entire door opening for securing freight in freight-cars; *but the peculiar combination of Watson's was not known to the public, had not been discovered by any inventor, and the first knowledge that the public had that a grain-car could be constructed and operated in the way described in Watson's invention, was when his patent was issued.*

Watson's combination new.

Now the difficulty here is, that neither the defendant nor VanLiew, her licensor, have been willing to abide by, and be contented with the grain-doors that had preceded Watson's; in fact, they had been partially tried and were either partially or wholly failures, and they have at last been compelled to resort to the very means described by Watson, in order to procure a serviceable, permanent and easily managed grain-door, namely; They have been compelled to throw away and abandon solid grain-doors altogether, and to use the inner flexible sliding grain-door, of less height than the car doorway, so that grain may be loaded in the car over the top of the door, and combined with this a solid outside door, and all this in the same car.

Defendants passed by all all other grain-doors and adopted Watson's.

The doctrine enunciated by Mr. Justice Nelson in *Parkhurst* v. *Kinsman*, 1 Blatch., 494, applies strongly to the Crooker car defense that "crude and imperfect experiments, equivocal in their results, and then given up for years, cannot prevail against an original inventor who had perfected his improvement and obtained a patent.

Abandoned devices cannot avail to defeat a patent.

And Mr. Justice Strong, in deciding the case of *Roberts* v. *Dickey*, 1 Off. Gaz., 4, after quoting affirmingly the language of Judge Nelson, said:

"There can be no better evidence that all the trials of blasting in oil wells which were made before the complainant obtained his patent were immature and inadequate to the accomplishment of the desired result than the fact that they were abandoned, and the patentee's method was resorted to so soon as it became known. * *

Something has been conceived and worked out that has immensely increased production. It is confessedly embodied in this patentee's method, and it is described in his patent. Certain it is that no one of the experimenters whose testimony we have considered can say 'I did it.' No other than Roberts can say 'I devised and practiced that which has conferred these benefits upon the public. I perfected this invention.'"

And so, after reviewing all the failures in constructing a car adapted for carrying both grain and bulk freight, or in the words of the board of examiners of the patent office, "a convertible car,"—after looking at the long list of devices made by Crooker, VanLiew, Clark and a host of others, Watson is the only man who can say, "I am the one who produced a perfect and practically useful device; I am the one who gave the public the benefit, which these imitators now claim as their own."

THE AGGREGATION THEORY.

There are a number of cases, of which *Hailes* v. *Van Wormer*, 20 Wallace, 353, may be taken as a leading one, which are to the effect that where several old elements are taken from several different machines, and brought together without effecting any new or better result, that the device thus made is practically a mechanical aggregation, and not a patentable combination. In the case

mentioned, the patentee had taken a fire-pot from one stove, a flue from another, and a coal reservoir from a third, and had put them into a new stove, where each fulfilled the office it had fulfilled in its old situation, nothing more. The patent was held void for want of invention.

In *Phillips* v. *Detroit*, 111 U. S., 604, the patent sued on was for an improvement in street and other highway pavements. The improvement consisted in using round blocks of wood, formed of the sections of small trees, set vertically upon a foundation of sand or gravel, and filling the space between the blocks with sand or gravel. The Court said that the use of blocks such as were described, set vertically, was old, that the foundation was old, and the use of gravel for filling between the blocks was old, and that the only thing left for the patent to cover was the bringing together in the construction of the pavement of these three old and well-known elements, and held that this did not require invention and that the patent was void.

Another case of this class is *Heald* v. *Rice*, 104 U. S., 737. This was a suit on a re-issued patent for improvements in steam-boilers. The invention, as stated in the complaint, consisted, among other things, of a combination of a straw-feeding attachment, with the furnace-door of a return-flue steam-boiler, for the use of straw alone as fuel, for generating steam ample for practically operating steam-engines. It appeared by the evidence in the case that one David Morey had invented an arrangement for feeding straw to generate steam, which was substantially the same as that of the plaintiff,

Rice. Rice supposed at first that his invention covered the boiler itself, though he found afterward that it was not new, but was, on the contrary, well known as the Cornish boiler. The main difficulty he claimed to overcome by his invention was in preventing air from being admitted when the straw was being fed into the furnace. He says, "I took his (Morey's) tube and and attached it to this boiler, (the return-flue boiler,) and it was a success." And the act of invention he specified to consist in combining the two together. The Court said there was no patentable invention in Rice's adaptation. The return-flue boiler, it was admitted, was old; the Morey attachment had already been invented; the idea and principle of its operation, in adapting boilers to the use of straw as fuel, was the essence of his invention. Rice discovered, it is confessed, nothing more than that for such purposes a return-flue boiler was better than fire-box boilers, which were the only kind that had than been used. The difference is formal and destitute of ingenuity or invention, and the patent was held void.

Another case belonging to this same class is *Morris* v. *McMillan*, 112 U. S., 244.

Watson's case different.

All these cases, however, differ from the one at bar. In this case, no *grain-door like Watson's had ever been made or used.* No such combination of a solid door and flexible door had ever been known or used. The grain-doors in use before his were objectionable, difficult to manage, hard to get out of the way, easily broken off, and for ten years one substitute after another was tried, as the proof shows, without success, until Watson showed how to do it.

In *the cases cited there was no ingenuity displayed in altering old devices to adapt them to a new purpose, and to accomplish a better result.* In the stove case, and, in fact, in all these cases, the old devices were taken bodily and, without change, were combined together in the new device to do precisely what they had done in the older ones. *As the board of appeal in the patent office well said, in reversing the decision of the examiner, none of the devices referred to as anticipating Watson's could be used for his device without change to adapt* them to the new use for which he had designed them.

Watson changed the older devices and produced a new and better result.

Each one of these cases stands upon its own merits, and must be construed by reference to its own peculiar facts, and when so construed they will be found to mean substantially this: that there was a mere juxtaposition of elements, and not such a union of parts as constituted a new entity. There was no new idea in either of the devices described in the patents upon which these cases were brought.

On the other hand, the following cases are examples of improvement which required the genius of the inventor to produce them: In the case of *Smith* v. *The Goodyear Dental Vulcanite Company*, 93 U. S. 486, the patentee was the first to use hard rubber as a plate for false teeth. Cement and other substances had been used before, but they had all been defective, inasmuch as they allowed crevices between the teeth and the plate. But in the hard rubber plate the teeth could be inserted without leaving crevices. It was, moreover, light, flexible, and not susceptible to decay from the secretions in the mouth. Here, then was something more than sub-

stitution of one known material for another: there was the introduction of a new effect.

Again, a new and greatly improved roller for a wringing-machine was constructed by surrounding the shaft with a fabric made of fibrous cloth and rubber. This material had been sold before, in the form a tube, to customers who cut it into sections or rings for stuffing-boxes. But it required inventive genius to discover its usefulness for the very different purpose of the wringing-machine.

Forsyth v. *Clapp*, 6 Fish. 528.

So, also, it was held that the use, for collars, of linen faced with paper, was a patentable invention, although substantially the same material had been used previously for maps.

Union Paper Collar Co. v. *White*, 7 O. G. 698.

In another case the patent was for engraving glass by means of sand thrown by a jet of steam or water against the glass while it revolved. This was held to be an invention, the former way of engraving glass being by the use of a brush, with which sand and water were applied.

Tilghman v. *Morse*, 9 Blatch. 421.

UTILITY A TEST OF INVENTION.

It is for reasons like those mentioned in the preceding cases that utility is regarded as a high evidence of invention. Thus, if a man makes some change, though apparently a very slight one, in well known and much used machinery, and this change constitutes a

valuable improvement, there is a presumption that inventive genius was required to make it.

Mr. Merwin's tests of invention.

Mr. Merwin in his book on "Patentability of Inventions," page 62, gives these three tests of inventions:

"*First*—That the defect supplied, or the difficulty removed had actual existence.

"*Second*—That those, or some of those, familiar with the art in which it existed were conscious of it.

"*Third*—That being conscious of it, they had striven unsuccessfully to remedy it."

And he adds: "If these three conditions are fulfilled, there is a presumption, if not a conclusive presumption, that the improvement was the work of inventive genius." And he cites the case of *Pearl* v. *The Ocean Mills*, 11 O. G. 2, where a slight change in the form of the bobbins and spindles of cotton machinery effected a long-sought saving of power. It was therefore held patentable, although the actual material change was very slight, and after it had been made, seemed obvious.

Washburn and Moen Manufacturing Co. v. *Haish*, 4 Fed. Rep., 900, was one of a series of fourteen cases brought by the complainants for the infringement of what are called "The Barbed Fence Wire" patents. The case was argued on behalf of the defendants by competent counsel, among whom was Mr. Payson, the attorney of the appellee in this case. Among the defenses was one of the question of novelty, and that there was no invention in view of the state of the art at the time the inventions were claimed to have been made;

and Judge Drummond, deciding the cases, held that the patents were valid, and in the course of his opinion said:

Judge Sprague's test.

In *Howe* v. *Underwood*, 1 Fisher, 175, Judge Sprague said: How invariable it is after a great invention has been brought before the world, has become known to the public, and been put in form to be useful, that people start up in various places and declare that they invented the same thing before. The cotton-gin and the ether discovery are illustrations in point; and others of similiar character might be added indefinitely. These pretended prior inventors had thought of such a thing; they had the conception of such a thing, perhaps; but they never carried it to the extent of making it of practical utility, so that the world could obtain possession of it. But when they find that another has completed what they had begun, they are astonished that they did not see, think they must have seen all that is necessary, and they claim that they have invented it. After having seen what has been done, the mind is very apt to blend the subsequent information with prior recollections, and confuse them together. Prophecy after the event is easy prophecy. I think that this is one of the cases in which several of the witnesses have been led into the illusion of believing that they knew before what they have since learned or been taught.

The same learned judge, in *Hayden* v. *Suffolk Manufacturing Co.*, 4 Fisher, 103, said:

Where an invention of a useful machine, or structure or improvement in any machine, is shown to have been made, and it its sought to be invalidated by an old machine made years ago, the jury should examine the testimony and the evidence with care and caution, so as to be satisfied that that which is said to have existed was actually and substantially the same. * * * The rule of law is a reasonable one; at all events it is a rule of law that a party that sets up such an old instrument that has

passed away has upon him the burden of satisfying the jury, upon a preponderance of evidence, that it is substantially the the same as what has taken place before they will set aside the patent.

So in *Goodyear* v. *Day*, 2 Wall., Jr., 283, Mr. Justice Grier says:

Justice Grier's test.

It is usually the case, where any valuable discovery is made, or any new machine of great utility has been invented, that the attention of the public has been turned to the subject previously, and that many persons have been making researches and experiments. * * Many experiments may have been successfully tried, coming very near yet falling short of the desired result. They have produced nothing beneficial. The invention, when perfected, may truly be said to be the culminating point of many experiments, not only of the inventor, but by many others. *He may have profited indirectly by the unsuccessful experiments and failures of others, but it gives them no right to claim a share of the honor or the profit of the successful inventor.*

Judge Drummond, in the Barbed Wire case, *supra*, concludes thus:

Judge Drummond's rule.

"In the absence of any other test the Courts have seemed to assume that the fact of the acceptance of a new device or combination by the public, and putting it into extensive use, was evidence that it was the product of invention; or, as one of the counsel for plaintiff expressed it, 'utility is suggestive of originality.'"

In *Smith* v. *Goodyear Dental Vulcanite Co.*, 93 U. S., 486, Mr. Justice Strong said:

Justice Strong.

Undoubtedly the result or consequences of a process or manufacture may in some cases be regarded as of importance when the inquiry is whether the process of manufacture exhibits invention, thought and ingenuity.

Webster, on the subject of Patents, page 30, says:

Webster's rule: Utility of change test of invention.

The utility of the change, as ascertained by its consequences, is that the real practical test of the sufficiency of an invention; and, since the one cannot exist without the other, the existence of the one may be presumed one proof of the existence of the other. Where the utility is proved to exist in any degree, a sufficiency of invention to support the patent must be presumed. We do not say the single fact that a device has gone into general use, and has displaced other devices which had previously been employed for analogous uses, establishes in all cases that the later device involves a patentable invention. It may, however, always be considered; and, when the other facts in the case leave the question in doubt, it is sufficient to turn the scale.

So in *Eppinger* v. *Richey*, 14 Blatchf., 307, Judge Shipman said:

Judge Shipman's rule the same.

Two facts exist in this case: One is that an important improvement has been obtained; the second is that the improvement is in a staple article which has been manufactured in this country for a long series of years. * * The utility of the patented article has been evinced by its large sales. * * The inventor evidently gave to the public an article which was wanted, and which it had not previously known. Without giving to the general use of the invention as a test of its patentability any greater importance than the Supreme Court in the case of *Smith* v. *Goodyear Dental Vulcanite Co.* (above quoted), indicate should be given to this circumstance, I am of the opinion that the facts in the case fully establish the conclusions: 1st, That however simple that change in the method of manufacture apparently may have been, yet it was a change which required invention for its accomplishment; and, 2d, That the improvement resulting from the changed method of manufacture has been so great that the article which is produced is, within the

meaning of the patent acts, a new and useful article of manufacture.

Judge Shepley said in the case of *Isaacs* v. *Abrams*, 14 O. G., 862:

Judge Shepley agrees.

A change in the form of a machine or instrument, though slight, if it works a successful result, not before accomplished in a similar way, in the art to which it is applied, or in any other, is patentable.

Judge Shipman said in *Stanley Works* v. *Sargent*, 8 Blatch., 346:

Utility is not an infallible test of originality. The patent law requires a thing to be new as well as useful in order to entitle it to the protection of the statute. To be new in the sense of the act it must be the product of original thought or inventive skill, and not a mere formal or mechanical change of what was old and well known; but the effect produced by the change is often an appropriate though not a controlling consideration in determining the character of the change itself.

III. THE QUESTION OF INFRINGEMENT.

There can be no doubt but what the cars used by the appellee, as specified in the bill of complaint, contained the equivalent of the device shown in Watson's patent. The model before the Court, entitled "Defendant's Car," when compared with the model of Watson's car, clearly shows that the two are substantially identical. In both we find the combination of an inside flexible grain-door, of less height than the door-opening, adapted to be slid up overhead and under the roof of the car, with a freight-car having a solid sliding outside door. The only difference between the two models is, Watson's slides upon rods, while in the defendant's car

the grain-door slides up in grooves or ways. The one is undoubtedly the mechanical equivalent of the other; the rods were old, the grooves were old, and the examiner held that the two were mechanically identical, which was undoubtedly true.

What the Board of Examiners held Watson's invention to be.

Watson's patent, as I have before argued, *was held by the board of appeal, in the patent office, and must fairly be taken to be, a combination in an ordinary freight-car of a solid outside door and an inside flexible grain-door of less height than the door opening;* and in this light the two models are identical, both containing all the elements necessary to make this combination, and in each the several elements are combined and caused to operate in substantially the same way, to produce the same result.

But it is claimed that Watson consented to the narrowing of his claim, in the patent office, and took a limited patent, and hence must stand or fall by such limitations.

This principle is a sound one, doubtless, but it is, unfortunately for the appellee, not true that Watson limited himself to the use of eyes and bolts. These were clearly old, and shown in Clark's patent. The examiner held the rods of Clark and grooves of Crooker were equivalent devices. (Record, p. 38.) This was correct—but the examiner rejected Watson's application on the ground that no invention was displayed by Watson in making a short half-high grain-door flexible, and combining it on a car having an outside solid closing door. This was the gist of the examiner's objection.

(Record, p. 37.)

Watson's last claim, as amended, was as broad as any of his former ones, and the examiner so held.

(Record, p. 38.)

From this decision Watson appealed to the board of examiners, who reversed the decision below and held that Watson's invention differed from Crooker's, in being "adapted by convertibility to uses" that Crooker's could not.

Watson stands on the ground taken by the Patent Office Board.

The undeniable fact is this: *Watson stands squarely on the ground given him by the officials of the patent office, on appeal, and he asks no more and no less of this Court, than just such a construction of his patent as these appeal Judges gave it.*

It is not a question of grooves or rods. Both were old; rods were shown in Clark's grain-door, and grooves were used on Crooker's closing door. Watson wanted to make a better grain-door than any solid door could be. These had been tried for years, and were objectionable. But the ordinary *freight-car with sliding outside locking door must be used; railroads would insist upon that.* Any other plan would fall flat and prove a failure from the start.

The principal examiner said, "Clark's and Crooker's patents are a good defense to your application for a patent," and refused to grant it. *What more does appellee's counsel urge as defense? Nothing whatever.*

Watson appealed to the board of examiners in chief. He said, "*This Crooker and Clark defense is unsound. Crooker's door is worthless. Clark's door is defective. I have a combination different from and better than either.*"

And the Board so held and so decided. They say of Watson's device:

> It consists of a combination of various instrumentalities not found in either of the references. Applicant's car, as a whole, is adapted by convertibility to uses not compatible with the cases cited, without injury. *In this case the flexible door is applied in addition to the usual slide-doors*, and when coarse freight is to be carried, the flexible shutters are secured in place at the top under the roof of the car.
>
> The decision is reversed.

And on this decision the patent was issued, and it was issued by order of the board, and against the ruling of the principal examiner.

The defense stale.

Now, as I have said, counsel for appellee is urging a stale defense. He adds nothing to the argument made in the Patent office. He comes here with the absurd claim that his defending corporation is using Crooker's car. Why then does it use the outside solid door in combination with a flexible grain-door? This is Watson's combination. It can not be found in any other device or anybody else's patent.

Again it was insisted that in his patent Watson expressly disclaimed a door sliding in grooves. This is erroneous. Watson had been referred to a flexible door sliding in grooves, and he admits that such doors were not broadly new, but this previous door (Crooker's) was not a grain-door at all, could not be used as such, and the car had no solid outside door at all. And this, and only this, is the extent of Watson's "express disclaimer," upon which the counsel laid so much stress in the Court below.

Watson went up on appeal upon the same grounds, insisting on the novelty of his combination over both the references to Crooker and Clark.

There is no such disclaimer in Watson's patent, as appellee's counsel contends, as to a door sliding in grooves; of course grooves were old, so were rods. He did not "*broadly*" claim a door sliding in grooves, for Crooker's door had been cited, but he says such a door constituted "an outside closing-door proper," but he did claim a flexible grain-door put on a car having an outside rigid sliding closing-door, and he never abandoned such a claim, and the board of appeals recognized its validity, allowed it, and *sent the patent to issue* precisely on this basis, and only on this. Here we stand. On this we insist. We do not deny, we grant, that rods and grooves are mechanically the equivalents of each other. Any man with a mechanic's eye or training can see this. We want no decision based on differences between rods or grooves.

We insist, again, and finally—the appellee has adopted our car. It has chosen to use Watson's combination in preference to all prior devices, and we say it must be held liable as an infringer of Watson's patent.

Defendant estopped to deny invention.

It does not lie in its mouth to deny the patentability of Watson's device. This sort of defense comes with a very poor grace from the men who are reaping harvests of revenue from its use every day.

In *Singer* v. *Walmsley*, 1 Fisher, 558, the Court said:

Patents are not monopolies, because a monopoly is that which segregates what was common before, and gives it to one

person or class for use or profit. A patent is that which brings out from the realm of mind something that never existed before, and gives it to the country. *Probably of all species of property the property in patent rights should be most carefully guarded and protected, because it is so easily assailed.*

RULES FOR THE CONSTRUCTION OF PATENTS.

In *Klein* v. *Russell*, 19 Wallace, 466, this Court said: "The Court should proceed in a liberal spirit, so as to sustain the patent, and the construction claimed by the patentee himself, if this can be done consistently with the language which he has employed."

Again, in *Turrill* v. *The Railroad Company*, 1 Wallace, 491, the Court says:

Patents for inventions, under a fair application of the rule "*ut res magis valeat quam pereat*," are, if practicable, to be so interpreted as to uphold, and not to destroy, the right of the inventor. If any doubts arise on the question, they should be, as a general rule, resolved in favor of the inventor and not against him.

In *Blandy* v. *Griffith*, 3 Fisher, 609, the Court says:

The rights secured by a patent for an invention or discovery, are as much property as anything else, real, or incorpeal, and the titles by which they are held, like other titles, should not be overthrown upon doubts or objections capable of a real and just solution in favor of their validity.

Again—

It is the duty of the Court, in construing a patent, to so construe it, if it can without doing violence to the language used, as not to defeat the claim of the patentee, but to give to the patentee what he has actually invented, and all of that which

he has actually invented; in other words, to make the claim commensurate with the invention which has been actually made by the patentee.

See *Fitch* v. *Bragg*, 8 Fed. Rep. 588.

Estabrook v. *Dunbar*, 10 O. G. 909.

Patents for inventions are treated as a just reward to ingenious men, and as highly beneficial to the public, not only as holding out suitable encouragement to genius, and talent, and enterprise, but as ultimately securing to the whole community great advantages from the free communication of secrets, and processes, and machinery which may be most important to all the great interests of society, to agriculture, to commerce and to manufactures, as well as to the cause of science and art. Specifications are therefore entitled to a liberal construction, since they are not granted as restrictions upon the rights of the community, but to promote science and the useful arts.

Blanchard v. *Sprague*, 2 Story, 164.

Treadwell v. *Parrot*, 3 Fisher, 24.

Winans v. *Denmead*, 15 Howard, 330.

Corning v. *Burden*, 15 Howard, 252.

In concluding, it may fairly be urged that if, after examining all the patents cited for the defense, and the testimony of the witnesses, and the exhibits brought before the Court, any doubt should remain in the mind of the Court as to the validity of Watson's letters patent, such doubt should be resolved in favor of the appellant and not against him.

Doubt should be resolved in favor of Watson

The action of the officials of the patent office in granting his patent is a strong point in his favor, as against the defense urged in this case.

If this Court will construe Watson's patent as the higher authorities in the patent office did,—if it will

sustain the ground upon which it was ordered to be issued, viz.: that Watson's peculiar convertible device was not anticipated by either Crooker's device, or Clark's, there will be an end of this controversy. The Court below refused to do this. It said:

"If this be the meaning of the decision of the examiners in chief, with due respect I am constrained to dissent." (Record, p. 47.)

Court should sustain the Appeal Board.

The courts have not been slow to declare that they will follow the decision of the patent office authorities in limiting a patentee, where he has agreed to narrow his claims in order to get his patent issued, to his peculiar construction, and it only seems fair and just that the courts should equally sustain the patent office when it has issued a patent, as in this case, upon broader grounds, and give the patent the scope the patent office allowed it.

The proper authorities, after a careful review of the objections to this patent, which were the same in substance as are now here presented to the Court, decided that it was patentable, and the patent was accordingly issued; and it is not too much to ask that it shall be allowed to stand, and that whatever benefit or value there may be in its use as compared with other devices, that the appellant, Watson, who first gave to the public in his patent full knowledge of how such use could be made available, shall be allowed to benefit by it; and that the appellee and its associates shall not be allowed to reap the advantage accruing from it.

Respectfully submitted:

C. P. JACOBS,

Solicitor for Appellant.

Office Supreme Court U. S.
FILED.
SEP 27 1889
JAMES H. McKENNEY,
CLERK.

Supreme Court of the United States.

OCTOBER TERM, 1888.

CHAUNCEY R. WATSON, *Appellant*,
vs.
THE CINCINNATI, INDIANAPOLIS, ST. LOUIS & CHICAGO RAILWAY COMPANY, *Appellee*.

No. 309.

BRIEF FOR APPELLEE.

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Supreme Court of the United States.

OCTOBER TERM, 1888.

C. R. WATSON, *Appellant*,
vs.
THE CINCINNATI, INDIANAPOLIS, ST. LOUIS & CHICAGO RAILWAY COMPANY, *Appellee*.
No. 309.

BRIEF FOR APPELLEE.

I

This is a suit by Watson, the appellant, against the Cincinnati, Indianapolis, St. Louis & Chicago Railway Company, the appellee, for the alleged infringement of a patent granted to said Watson, April 30, 1878, No. 203,226, for a grain-door, or grain-car door; that is, a door to be used in cars for carrying grain in bulk.

There is a great variety of these doors in use, differing widely in construction and operation, but they nearly all agree in this, that they are inside doors, so as to be pressed outwards by the grain against the door-posts; and they are half-doors, that is, they fill only the lower part of the door-way, so as to allow grain to be shoveled into the car after the door is put in place.

The particular construction and operation of the Watson grain-door are well shown in the drawings opposite page 10 of the printed record. It is a door made of separate slats united to each other by hinges, and provided with staples at both ends, that encircle the guiding rods C C, on which the door may be slid up, when desired, under the roof of the car, so as to be out of the way.

The door used by the defendants was patented by Martin M. Crooker, in 1868, or ten years before the date of the Watson patent. It was also made of separate strips attached to each other so as to be flexible, and capable of being slid up, out of the way, under the roof of the car, in the same way as Watson's; only, instead of sliding on rods, it was made to slide in grooves or "channel-irons," affixed to the inside of the door-posts; and, instead of being attached to each other by hinges, the slats were all fastened to long, continuous metal straps.

This jointed or flexible door was not new even with Crooker; as he says in his specification, "I do not claim "to be the inventor of a jointed device for closing window "and door spaces in stores and dwellings, for I am well "aware of the existence of such devices." Record, p. 41.

The only proof of the use of this Crooker door by defendants is that contained in the stipulation on page 7, in which it is agreed, "that the defendant had hauled over "its line of road freight-cars belonging to the Chicago, "Rock Island & Pacific Railway Company, having a "solid, outside door like an ordinary freight-car, and an "inner, flexible, sliding grain-door of less height than the "opening in the side of the car; the grain-door sliding in "grooves like the grooves shown in the patent of Martin "M. Crooker, of May 26, 1868, and the slats composing "the door being attached to each other by being strung "upon wires passing through the slats."

This is the only use, if it can be called a use, by defendants of the Crooker door. They neither put in the doors, nor loaded or unloaded the grain. In fact, there is no proof that they ever saw the doors, or knew anything about their construction or operation.

It is not necessary, however, to consider whether this was such a use as would constitute infringement, because it is absolutely certain (or so, at least, it seems to the appellee), that the Crooker door, or that used in the cars in question, can, by no process of reasoning, be made to appear the same as Watson's. The attempt on the part of appellant to make out infringement is without a parallel. To ordinary minds it must seem incredible.

II.

When Watson first filed his application, it contained the following claims:

1st. A grain-door, constructed of longitudinal, sectional pieces, hinged or strapped together in such a manner as that the door, as a whole, may yield to follow any desired line of movement, when it is not in use as a grain door, and it is desired to place it out of the way, substantially as herein described.

2d. A grain-door D, constructed as above described, and hinged or strapped so as to be flexible or yielding, for the purpose set forth, in combination with the guiding rods C, whereby, when not in use, it may be carried up and placed in the horizontal portion of said guiding rods, so as to be out of the way, substantially as described.

3d. A grain-door D, constructed as described, and provided with staples *c*, *c*, in combination with guiding rods C, and devices for affixing it to the top of the car, substantially as described, and for the purposes set forth. Record, p. 34.

The first of these claims, as the Court will see, exactly describes the door patented by Crooker ten years before. And on examination, the application was rejected on reference to that patent; the examiners holding that the Watson "door differs from Crooker's only in the name, "and in this, that the upper portion of Crooker's door is "cut off to make applicant's. The rods and staples are "substitutes for Crooker's channel-irons, obvious to any "skilled workman." Record, p. 35.

In answer to this Watson amended his specification by inserting therein the following statement:

"I am aware that a car-door of similar construction, "sliding in grooved ways, is old, and such I do not desire "to claim, broadly, as my invention. Said door, however, "constitutes an outside or closing car door proper, and the "car could not be loaded or used for bulk grain, unless the "grain is put in from the roof of the car, as the door com- "pletely closes the doorway or opening. Furthermore, "said door is obviously objectionable for other reasons, "viz.: The grain will lodge or get in the grooved ways in "which the door slides, binding or locking it, so as to pre- "vent its being raised; and, also, being an outside door, "the grain pressing against it, would force or bulge the "door outward, producing a similar effect as the grain "lodging in the grooved ways; whereas, my door, being "an inside door, and not reaching the top of the door- "way or opening, admits an open space at the top for "loading in the grain, with an ordinary outside door, to be "locked or otherwise secured after the car is loaded. By "also employing guiding rods for the door to slide upon, "and, being an inside door, the defects incident to the "grooved ways and an outside door before referred to, are "entirely obviated." Record, p. 36.

And at the same time be substituted for his first and second claims the following:

First. The combination, with a car, of an inside flexible or yielding and vertically sliding grain door, and guiding rods, C, whereby said door, when not in use, can be carried up and placed on the horizontal portions of said guiding rods, out of the way, substantially as and for the purpose herein shown and described. Record, p. 36.

To this amended application the examiners replied as follows:

"It is not considered that Crooker, in removing the "upper few slats of his door, would be making a patent- "able improvement on his own invention, albeit he might "change its name, and allege the result of loading in over "the top of his door."

"The change is an obvious one to any user of freight- "cars; further, the use of rods and eyes is old in this "connection. See patent of H. C. Clark, August 29, '71,

" No. 118,514 (carpentry doors), which further confirms " the former action in relation thereto."

" In regard to the clogging and binding referred to in " argument, no clear or considerable results are seen to be " accomplished by applicant's device over the reference " such as should argue any invention thereon. Applica- " tion is rejected." Record, p. 37.

And thereupon Watson further amended by substituting the following single claim in place of those before presented:

" The combination, with a car, of an inside, flexible or " yielding, sliding grain-door, having staples, *c*, and the " vertical and horizontal bent guiding rods, C, extending " from the floor of the car upwardly and under the roof of " the car, as herein shown and described, whereby said " door, when not in use, can be carried up on horizontal " portions of said guiding rods, out of the way, substanti- " ally as specified." Record, p. 37.

Even with his claims thus limited, however, Watson's application was a third time rejected; the examiners still holding that " It presented no patentable novelty over " Crooker's; and that, in view of the state of the art, as " shown by the references cited, the use of eyes and rods " for guiding the sliding-door, are the simple mechanical " equivalents of the channel-irons of Crooker." Record, " pp. 37, 38.

On this an appeal was taken to the examiner-in-chief, who reversed the former decisions, and allowed the patent, saying:

" *The invention in this case is small, and the claim is correspondingly limited.* It consists of a combination of various instrumentalities not found in either of the references. Applicant's car, as a whole, is adapted by convertibility to uses not compatible with the cases cited without injury. In this case the flexible door is applied in addition to the usual slide-doors, and, when coarse freight is to be carried, the flexible shutters are secured in place at the top, under the roof of the car." Record, p. 32.

The Court will note that in allowing the patent, the examiner-in-chief was careful to guard against any possible misinterpretation. He says, "The invention is slight, and "the claim is correspondingly limited."

III.

The history of the case thus far may then be briefly stated as follows:

Crooker's invention was some ten years older than Watson's—and Watson's application was at first rejected solely on reference to Crooker.

Watson then insisted that his door was materially different from Crooker's, and, among other things, in this, that the grooves, in which Crooker's door were made to slide, were liable to become choked with grain; whereas, his door, sliding on rods, was not subject to that objection.

He inserted an amendment to that effect in his specification; and that amendment is still part of his patent.

By that amendment he in fact disclaimed a door sliding in grooves.

At the same time he struck out the two broadest claims annexed to his original application, and substituted the somewhat narrower claim on page 36, in which the door is now claimed only when "inside."

His application being still rejected, he once more amended his claims, substituting the single, narrow claim now found in his patent, in which the staples *c*, and the horizontal, bent, guiding rods C, are specifically included.

On this claim the patent, thought at first refused, was finally allowed; but the broad claims originally filed still remained abandoned, and the disclaimer of "doors sliding in grooves" is still in force.

Having thus, however, obtained his patent, Watson now turns round and says that there is really no material difference between a door sliding in grooves, and a door sliding on rods; and that the argument to the contrary he then

made use of, and the corresponding statement, inserted in his amended specification, were, both of them, false and unsound.

His argument, indeed, contains other suggestions presently to be noted; but whatever else he may say, in order to make out infringement, he is still compelled to maintain and prove that a door sliding in grooves is substantially the same thing as a door sliding on rods; he is still compelled to repudiate his former argument, and to disclaim his former disclaimer.

And, what is even worse, if possible, he is compelled to give to the limited claim finally allowed and accepted by him a construction every whit as broad as that of the original claims which he abandoned.

If he had attempted to do this openly and boldly, by a reissue, there can be no question as to the fate his application would have met with. He would have said in that case:

"My original claims were broad enough to cover the "Crooker door. I abandoned them in order to avoid that "reference. I then argued that a door sliding on rods "was not the same thing as a door sliding in grooves. I "pointed out the differences between them. And I "finally obtained a patent with a single narrow claim, "expressly limited to a door sliding on rods. But now "I want a reissue with claims that shall expressly include "a door like Crooker's, sliding in grooves."

It is not believed that even the appellant would have had the hardihood to venture on such an experiment. But what he could not have done directly, by means of a reissue, he certainly cannot be allowed to do thus indirectly, by going back to the original claims which he had to abandon in order to obtain his patent.

"It may be," as said by the Court below, "that there "is no essential difference mechanically between the grooves "and the rods and staples; but, if so, the complainant is "estopped from saying it, because he has expressly claimed "one, and disclaimed the other; and this alone is a suffi-"cient ground to rest the decision of the case upon. By

" the terms of his specification and claim, he has made the " rods and staples a part of his combination, and has ex- " pressly disavowed the use of grooves as an equivalent; " and consequently may not now, whatever otherwise " might have been his right, insist that the grooves are an " equivalent of the rods, or that the rods and staples are " not essential to his combination. This being so, the " defendants have not used the entire combination, and " consequently have not infringed." Record, p. 48.

The law on this point is well stated in *Sargent* v. *Hall Company*, 114 U. S. 86. "In patents for combinations of " mechanism, limitations and provisos imposed by the " inventor, especially such as were introduced into an " application after it had been persistently rejected, must " be strictly construed against the inventor, and in favor " of the public, and looked upon as in the nature of dis- " claimers."

And finally, it is worthy of note, in this connection, that none of the complainant's witnesses, not even the complainant himself, has testified that the door used by defendants is the same thing as the Watson door, or is any infringement on the Watson patent.

IV.

It is further said by complainant, in his bill, that "His " patent secured to him the exclusive right to make, use " and sell a car constructed like an ordinary freight-car, " having an outside door for closing the car, and provided " with an inside, flexible or yielding, sliding grain-door, " which is adapted to be carried up on guide-rods, or their " equivalent, overhead and out of the way, and under the " roof of the cars." Record, p. 2.

And again, in his specification and argument, "That " the Crooker door could not be used for grain, because it " fills the whole opening; and that, being an outside door, " the grain, pressing against it, would force or bulge the " door outward."

But all this, even if true, would be no answer to the defendants' argument. It might tend slightly to prove

novelty and invention, but it would not tend at all to prove infringement. In other words, it would not tend to prove that the defendants' grooves were the mere mechanical equivalents of complainant's staples and rods.

But most of it is not true. It is not true that complainant's patent secured to him the right to a car having an outside door for closing the car, and provided with an inside, flexible grain-door, adapted to slide up under the roof. "There is nothing," as said by the Court below, "in either specification or claim, concerning ordinary freight-cars, or solid, sliding, outside doors; and in the claim nothing about outside doors at all, unless inferred from the description given of an inside door."

The claim is not thus limited to a car having both outside and inside doors; it covers a car with an inside door alone.

Neither is it true that the Crooker door is an outside door, and therefore liable to be forced or bulged outward by the pressure of the grain. One of his doors is just as much an inside door as Watson's. It is not only thus clearly shown in the drawings of the Crooker patent, but expressly so described in his specification: "The vertical "portion of the ways B′ B′, being on the inside of the car, "just at the edge of the said spaces, and firmly bolted in "place upon the car-framing."

The weight of the grain, therefore, would tend to press this door more firmly against the side of the car, just as it does with the Watson, and nearly all other grain-doors.

The statement that Crooker's door filled the whole opening; that is, that it was not a half-door, is correct; but, as already stated, this has nothing to do, directly, at least, with the question of infringement, whatever it may have to do with the question of novelty and invention.

Finally, the meaning of the Watson patent is perfectly plain upon its face. No one reading it would ever suppose it was meant to cover doors sliding in grooves. Still less could any one suppose this after reading the Crooker pat-

ent, and the argument made by Watson in the Patent Office, in answer to it. To give the patent now any such construction would be a manifest fraud upon the public.

V.

The question whether the Watson patent contains any patentable novelty or invention, is not of much importance. So far as appears from the record, no one has ever used his door, or is likely to use it. The only flexible grain-doors that ever have been used are those made in accordance with the Crooker patent : and there are very few even of them.

It seems very clear, however, that the Watson door shows no invention.

Inside grain-doors of different sorts, filling only part of the opening, had long been used on ordinary freight-cars, in connection with the outside, rigid, sliding door. Record, p. 13, Ints. 3 to 13 ; p. 19, Int. 17 ; p. 22, Ints. 5 to 7 ; p. 24, Ints. 5 to 9 ; p. 28, Ints. 2 to 5.

Doors made of separate, narrow slats joined together flexibly, so as to slide up out of the way, under the roof of the car, are found in the Crooker patent.

Grain-doors filling only half the opening, and sliding on rods, are shown in the patent of H. L. Clark, August 19, 1871. Record, p. 42.

It is true that Clark's door does not slide in the same way as Crooker's or Watson's. It has eyes to encircle the rods only at the upper corners ; and after the door is slid up to the top of the car, it is then swung up into a horizontal position, turning on these eyes as on a pivot.

The question then is, did it require any invention to put eyes also at the bottom of Clark's door, and extend the rods up under the roof, so as to have the door slide like Crooker's?

If this did require invention, then the Watson patent must be admitted to be valid, to that limited extent.

But this is not the theory of the complainant. His theory is that there was no invention on his part in substituting staples and rods for Crooker's grooves; but that there was invention in leaving off part of Crooker's slats, so as to make a half-door, and then using this half-door together with the ordinary, universally used, horizontally sliding, outside door.

No argument seems necessary to prove that it required no invention to make Crooker's door smaller, so as to fill only half the opening, just as Clark's and all other grain-doors had been made before; or to use such a door in connection with the ordinary outside door; even admitting that Watson has the right to include this outside door as a part of his claim.

These outside doors operate in precisely the same way with one grain-door as another. They are simply intended to make the car tight, and protect its contents. The same outside door would be used, whether the inside door were solid or flexible; or even if there were no inside door. There is no coaction between them, and nothing that can by any possibility be called a combination.

It is equally idle to say that the defendant has admitted the utility and consequent patentability of the Watson door by using it; first, because a thing may be both new and useful without being patentable; second, because the defendant in this case has not adopted the door, but simply hauled cars belonging to another road, without knowing anything about the door; and third, because the door in question, according to complainant's own argument in the Patent Office, is not the Watson door at all.

The complainant then is met by this dilemma. Either there is a material difference between a door sliding in grooves, and a door sliding on rods and staples, or there is not. If there is no difference, then his patent is invalid for want of novelty; if there is such difference, then there is no infringement.